



# Promoting Tolerance to Personal Uncertainty: An Exploratory Study of a Preventative Universal Intervention

Doctorate in Educational Psychology (DEdPsy)

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**Part One:** Major Literature Review

**Part Two:** Empirical Paper

**Part Three:** Major Research Reflective Account

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## Abstract

The spate of terror attacks occurring in the UK and abroad has led to an increased focus on ways to prevent young people (YP) being radicalised and/or being drawn into terrorism. This study endeavoured to promote resilience to radicalisation in young people by adopting the perspective of reactive approach motivation (RAM) theory. RAM theory attributes the move towards ideological extremes as a way of alleviating personal uncertainty that occurs in response to motivational conflict. There is a robust evidence base to support the role of RAM theory in promoting ideological extremes. The thesis is divided into two studies and employed a mixed-methods methodology. Study 1 involved the development of a universal programme to promote resilience to radicalisation by strengthening tolerance of personal uncertainty and Study 2 was the implementation and evaluation of that programme. Six educational psychologists (EPs) participated in Study 1 and a six-session programme called *Embrace Life* was developed to undergo two consecutive pilots in a Welsh and English secondary school in Study 2. Two Year 8 classes participated in the pilots ( $N = 54$ ). *Embrace Life* had no significant impact on scores on the Intolerance of Uncertainty Scale for Children (IUSC). However, the qualitative findings revealed key benefits for the YP involved including perceptions of increased psychological flexibility, reflectiveness, acceptance, and assertiveness. Furthermore, the universal approach facilitated the normalisation of uncertainty and other difficulties for some. The key challenges that were perceived are ones that could be remedied and include: increased engagement with school and home systems; conducting the programme in smaller groups to reduce self-consciousness and increase engagement; and the upgrading of the programme content to include more real-life connections. Implications for promoting resilience to radicalisation are discussed and the relevance for EP practice illustrated.

## Summary

The thesis is composed of three parts: a literature review; an empirical study; and a reflective account of the research. The thesis is an exploratory study of a preventative universal intervention which aims to promote tolerance of personal uncertainty in young people (YP). It serves as a preliminary investigation into potential ways of promoting resilience to radicalisation at a universal, preventative level.

Part 1 provides a definition of terminology related to radicalisation and illustrates the relevance of this issue to children, young people, schools and educational psychologists (EPs). This is followed by a thorough analysis of relevant theoretical literature regarding the radicalisation process. The analysis provides a robust theoretical base for a critique of current approaches in radicalisation prevention and emphasises the value of universal preventative approaches. A rationale for considering radicalisation from a psychological perspective is proposed, with a particular focus on reactive approach motivation (RAM) theory and personal uncertainty. Gaps in the research literature are outlined and the role of the EP in promoting resilience to radicalisation is considered. Finally, the aims of the current study are presented along with the key research questions.

Part 2 begins with a review of the relevant literature and moves on to present a rationale for adopting the lens of RAM theory to conduct the research. The thesis adopts a mixed-methods approach and is divided into two studies, which aim to promote resilience to radicalisation in YP through the development of a universal programme to strengthen YP's tolerance of personal uncertainty. Quantitative and qualitative results are presented and critiqued with reference to the research questions. Subsequently, Part 2 reflects on the strengths and limitations of the study alongside directions for further research. Finally, the implications for EP practice are discussed and analysed.

Part 3 provides a critical and reflective account of the research development and the study's contribution to knowledge in the field. Additionally, methodological decisions are explained and justified with reference to the underpinning ontological and epistemological position of the research. Throughout, an emphasis is placed on the growth of the researcher throughout the research process and the influence on professional practice.

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## **List of Abbreviations**

<b>BIS</b>	Behavioural inhibition system
<b>CCT</b>	Compensatory control theory
<b>EP</b>	Educational psychologist
<b>IUSC</b>	Intolerance of Uncertainty Scale for Children
<b>MEM</b>	Militant extremist mindset
<b>MLSN</b>	Multilevel social neuroscience
<b>MMM</b>	Meaning maintenance model
<b>NGT</b>	Nominal group technique
<b>NYPD</b>	New York police department
<b>RAM</b>	Reactive approach motivation
<b>TA</b>	Thematic analysis
<b>UIT</b>	Uncertainty-identity theory
<b>WCM</b>	World café method
<b>YP</b>	Young people

**Part One: Major Literature Review**  
Word Count: 12,080 words

## **1. Introduction**

### **1.1 Aims & Rigour of the Literature Review**

The aim of this narrative literature review is to provide a theoretical overview of the radicalisation process to enable a robust critique of the research that endeavours to promote resilience to radicalisation in children and young people (YP). From this, the literature review will help to build research questions that aim to explore new ways to develop this resilience. The rigour of the narrative literature review was guaranteed through the use of a literature review scoring rubric (Appendix A; Hart, 1998; Mertens, 2015). The process of conducting the literature review is reflected on in Part 3 of the study.

### **1.2 Overview of the Literature Review**

The literature review is introduced by a definition of radicalisation and illustrates the relevance of this topic to children, YP, families, schools and educational psychologists (EPs) in the context of the United Kingdom (UK).

The literature review begins with an overview of key theoretical perspectives regarding the radicalisation process: psychopathological theories; dispositional theories; social theories; psychological theories; and integrative theories. The review will go on to critique key approaches that endeavour to address the potential radicalisation of YP in the UK and the review will provide a rationale for a universal approach to radicalisation prevention.

The literature review will then include a rationale for considering radicalisation from a psychological perspective, with a particular focus on reactive approach motivation (RAM) Theory and uncertainty. RAM theory implicates poor tolerance of personal uncertainty as a potential contributor to more rigid, inflexible or extremist thinking (Horgan, 2008; McGregor, Prentice, & Nash, 2013).

Gaps in the literature will be outlined and the value of further research emphasised. Finally, the role of the educational psychologist (EP) will be outlined and EPs' potential contribution to promoting resilience to radicalisation in YP at the universal level will be explored. The objectives of the current study will then be highlighted, and the study's research questions presented.



### 1.3 Description of the Key Sources, Inclusion and Exclusion Criteria of the Literature Review

Table 1 *Description of Key Sources Used to Conduct Literature Review*

Description of Key Sources
<p>The literature was reviewed using PsycINFO, Google Scholar, the Education Resources Information Centre (ERIC), and Web of Science. Titles and abstracts of articles in English were searched using a combination of the following keywords: “radicalisation/radicalization”, “extremism”, “mental health”, “well-being”, “children”, “teenager”, “adolescent”, “school”, “educational psychologist/EP”, “United Kingdom/UK”, “uncertainty”, “reactive approach motivation/RAM”. The internet search engine, Google, was used to access relevant government documents and other relevant literature from charities and organisations working with or on behalf of young people. Searches were completed between August and January 2018 and a trail of the most relevant searches are documented in Appendix B.</p>

Table 2 *Inclusion and Exclusion Criteria of the Literature Review*

Inclusion & Exclusion Criteria
<p>Articles were included if they related to any of the following:</p> <ul style="list-style-type: none"> <li>• defining radicalisation</li> <li>• the recent UK context (2010-2019) with regards radicalisation (policy; practices; norms; discourse etc.)</li> <li>• theories/models of the radicalisation process</li> <li>• Approaches to radicalisation prevention (internationally and nationally)</li> <li>• The role of the EP in any of the above</li> </ul> <p>Conversely, articles were excluded if they:</p> <ul style="list-style-type: none"> <li>➤ did not meet the above inclusion criteria.</li> </ul>

#### **1.4 Definitions and Terminology Related to Radicalisation**

Radicalisation is a complex and multi-faceted phenomenon and there is much debate regarding the term's definition as it can be used in different contexts to serve differing agendas. (Horgan, 2008; Klein & Kruglanski, 2013; Kundnani, 2012; Sedgwick, 2010; Sewell & Hulusi, 2016). For example, Kundnani (2012) posits that policy-makers' definition of radicalisation is often rooted in attempts to understand the rationale for involvement in terrorism to inform preventative strategies. In this way, defining the term is influenced by the socio-political and cultural landscape in which the term is embedded and can then differ across nations and groups (Sedgwick, 2010). Consequently, Sedgwick (2010) prefers viewing radicalisation as an extreme position on a continuum of opinion that is influenced by cultural, social, political and religious norms, rather than defining it in absolute terms. In this way, what may be deemed radical in one nation or group may be less or more radical in others.

Whilst Sedgwick (2010) conceptualises radicalisation in terms of thoughts and beliefs, there is debate as to whether radical thought alone is enough to define radicalisation (Moskalenko & McCauley, 2009; Sewell & Hulusi, 2016). McCauley and Moskalenko (2017) propose that a key component of what they refer to as radicalism is the willingness to engage in illegal and violent political action. They view radicalisation of thought and action as separate. Similarly, Hafez and Mullins (2015) distinguish between the cognitive (thoughts, values, attitudes, beliefs) and behavioural dimensions of radicalisation; whilst other theorists emphasise processes that do not necessarily have a behavioural link. For example, Horgan (2008) views radicalisation as the complex psychological and social processes by which an individual comes to deepen their commitment to an extremist political or religious ideology. Similarly, Klein and Kruglanski (2013) propose that radicalisation is a deviation from the ideological norms inherent in society but emphasise that an expressed zeal for this deviation must also be present. Despite different emphases, Hafez and Mullins (2015) feel that radicalisation is commonly defined in the literature as a 'gradual process that entails socialisation into an extremist belief system that sets the stage for violence even if it is not inevitable' (p. 960), although they, and other researchers, stress that this process should not be considered as linear and orderly (Hafez & Mullins, 2015; Mythen, Walklate, & Peatfield, 2017; O'Donnell, 2016).

Table 3 *Definitions of Key Terms Used in the Study*

Definitions	
<b>Radicalisation</b>	In light of the research, the thesis agrees with defining radicalisation as ‘the process by which an individual or group comes to adopt increasingly extreme political, social, or religious ideals and aspirations that either reject or undermine the status quo or reject and/or undermine contemporary ideas and expressions of freedom of choice’ (Scarcella, Page, & Furtado, 2016, p. 6; Wilner & Dubouloz, 2010). As the status quo may differ across nations, the thesis agrees that we can only define radicalisation in the UK context and will refer to this context throughout the thesis (Sedgwick, 2010). Additionally, the thesis agrees that radicalisation occurs when these ideals and aspirations are experienced with personal zeal (Klein & Kruglanski, 2013). Personal zeal is defined as the intensity with which one feels about a subject (Abelson, 1995) and is associated with a firmness of belief/opinion, a willingness to defend a position and a certainty of one’s position (McGregor, Zanna, Holmes, & Spencer, 2001). The thesis also proposes that effective preventative working may be fostered by defining radicalisation in a way that does not discount cognitive dimensions of radicalisation merely because behavioural intention to engage in violence is not present. Therefore, the thesis agrees that radical action or intention for action do not necessarily need to be present for radicalisation to have occurred (Sewell & Hulusi, 2016).
<b>Terrorism</b>	Terrorism is defined as the use of violence, intimidation or disruption to advance political, religious or ideological causes (Terrorism Act, 2000; Dom et al., 2018).
<b>Extremism</b>	Extremism is, similar to radicalisation, defined only in the British context as vocal or active opposition to the status quo and/or contemporary values of freedom of choice (Her Majesty’s (HM) Government, 2015a; Scarcella et al., 2016).

### **1.5 The Relevance of Radicalisation to Children, Young People, Families, Schools and Educational Psychologists in the UK Context**

The term radicalisation was relatively unheard of in the media prior to 2001, evolving in response to terrorist attacks in Western Europe and the United States of America, such as the 9/11 Twin Tower attack and the 7/7 London bombings (Sedgwick, 2010). More recently high-profile and devastating acts of terrorism (e.g. Manchester Arena Bombing; London Bridge attack; Finsbury Park Mosque attack) have been carried out in the UK by individuals associated with extremism and/or extremist groups such as Islamic State (IS; L. Taylor & Soni, 2017). Terrorist attacks can challenge assumptions that the world is a safe and peaceful place (Ben-Ezra, Hamama-Raz, & Mahat-Shamir, 2017; Goodwin, Kaniasty, Sun, & Ben-Ezra, 2017; Pyszczyński, Solomon, & Greenberg, 2015) and can be associated with increased psychological distress (Ben-Ezra et al., 2017; Goodwin et al., 2017; Pyszczyński et al., 2015). In this way, the topic of radicalisation and how this is perceived to be connected to barbaric acts of terrorism is deemed a high priority by the UK government and receives widespread attention in the media and public discourse (HM Government, 2015a, 2015b; British Broadcasting Corporation (BBC), 2017; Dearden, 2018).

To address the issues of radicalisation and terrorism, the UK government introduced their counter-terrorism strategy known as CONTEST, which was updated in 2018 in response to increased numbers of terrorist incidences and the perceived need for heightened security by the government (HM Government, 2018). Part of the CONTEST strategy is occupied with preventing individuals from becoming terrorists or supporting terrorism. In response to increasing terrorist attacks, The *Counter-Terrorism and Security Act* (CT&S) 2015 placed a specific statutory duty, called the *Prevent Duty* (HM Government, 2015a), on all local authorities (LAs), schools, and registered early years and later years childcare providers. The duty requires that due consideration be given to preventing individuals from being drawn into terrorism. For example, LAs must develop a *Prevent* action plan, ensure that frontline staff are trained in issues related to radicalisation and are obliged to engage in multi-agency partnerships to coordinate and monitor the *Prevent* agenda. Some examples of LA approaches to promoting the *Prevent* agenda are outlined below:

Table 4 *Examples of how Local Authorities Are Promoting the Prevent Agenda*

➤ By 2015, Birmingham City Council had provided 71% of Birmingham schools with workshops to raise awareness of <i>Prevent</i> (WRAP) (Local Government Association, 2015).
➤ Cornwall Council shared the European Union's safer internet programme with parents to protect their children from online radicalisation (Local Government Association, 2015).
➤ Calderdale Council provided training sessions for taxi drivers to identify the signs of radicalisation and other safeguarding issues to protect children and YP in the LA (Local Government Association, 2015).
➤ LAs in Wales adhere to the <i>Respect &amp; Resilience- Developing Community Cohesion</i> guidance (Welsh Government (WG), 2016) which provides support on issues related to radicalisation and Prevent (e.g. a safeguarding toolkit; information on how inspection processes assess the Prevent agenda in schools).

Additionally, the Department for Education (DfE) (2015) has released guidance for schools and educational settings to clarify the *Prevent Duty*. This DfE guidance explains that CT&S sets out four actions that local authorities and educational settings should undertake, which are as follows:

- Identify children who may be vulnerable to radicalisation;
- Know what to do when they are identified;
- Build resilience to radicalisation through promoting British values and enable them to challenge extremist views;
- Manage concerns via setting-based safeguarding policies.

In 2015/16 alone, 7,631 individuals were referred to *Prevent*, a service set up to prevent radicalisation following the *CT&S Act*, and of those referred 56% were under the age of 20 (Home Office, 2017). Furthermore, 63% of the referrals made for young people (YP)

under 20 were then referred on to *Channel* (Home Office, 2017), a multi-agency panel that determine vulnerabilities in terms of engagement, intent and ability, and can develop support plans for YP (Sewell & Hulusi, 2017). The *Prevent Duty*'s targeted approach to preventing radicalisation (Sklad & Park, 2017) and the duty's fundamental assumptions have been criticised by some (Mythen et al., 2017; O'Donnell, 2016) and will be critiqued later in Section 2.2 of the literature review.

Given the age of the referrals to *Prevent* and *Channel* and the statutory obligations of LAs and educational settings (HM Government, 2015a, 2015b), it is evident that radicalisation is a topic of great relevance and importance to children and YP, families and local authorities, and thus warrants further exploration and scrutiny. Furthermore, the majority of EPs work in local authorities and work closely with children and YP, families, and schools. Therefore, EPs may be well-placed to promote resilience to radicalisation considering their professional role, training, and expertise (Sewell & Hulusi, 2016). The potential role of the EP in this realm will be discussed later literature review.

## **2. Narrative Literature Review**

### **2.1 Theoretical Perspectives**

The process of radicalisation will now be considered from several theoretical perspectives: psychopathological theories; dispositional theories; social theories; psychological theories; and integrative theories. Each perspective will be introduced and its relevance to understanding radicalisation highlighted and critiqued. Subsequently, a rationale for considering radicalisation from a psychological perspective will be provided, in particular focusing on reactive approach motivation theory and uncertainty (McGregor et al., 2013). These perspectives have been selected as this study deems them the most relevant in understanding radicalisation when compared to other theoretical perspectives (e.g. learning theories; psychoanalytic theories). A more in-depth critique of the varying theories can be found in the following reviews: Borum (2011); King and Taylor (2011); McCauley and Moskaleiko (2017); McGilloway, Ghosh and Bhui (2015).

#### **2.1.1 Psychopathological theories of radicalisation**

The assumption that terrorism and associated violence is associated with psychopathology has long been argued in the literature (Corner, Gill, Schouten, & Farnham, 2018; Dom et al., 2018; Yakeley & Taylor, 2017). A narrative that links mental disorders to egregious acts of terrorism offers a simple, univariate causal explanation for a phenomenon that is difficult to understand (Dom et al., 2018) and shatters views of the world as a peaceful, benevolent place (Pyszczyński et al., 2015). The literature tends to focus on the link between psychopathology and those who have already committed acts of terrorism, rather than those who have been radicalised (Corner et al., 2018). However, there has been a surge in new research which also looks at the link between radicalisation and psychopathology (Bhui, Everitt, & Jones, 2014; Corner et al., 2018; Victoroff et al., 2010). This literature alongside relevant terrorism literature will now be critiqued to develop an understanding of how psychopathology may influence the radicalisation process.

Anxiety and depression have been associated with radicalisation or extremist beliefs (Bhui et al., 2014; Bhui, Silva, Topciu, & Jones, 2016; Victoroff et al., 2010). For example, Victoroff et al. (2010) conducted a study with 52 Palestinian teenagers in Gaza and found that anxiety was significantly correlated with the belief that ‘harming civilians

is a justifiable tool in the Muslim arsenal' (Victoroff et al., 2010, p. 222). Furthermore, it was found that depressive symptoms were common amongst those who supported 'religio-political aggression' generally (Victoroff et al., 2010). Similarly, Bhui et al. (2014) found that those who expressed sympathies for violent protest and terrorism (VPT) were more likely to report depression in a population sample of 608 participants of Bangladeshi, Pakistani, or Muslim heritage in the UK.

In contrast, Coid et al. (2016) conducted a cross-sectional study on 3679 British men and found that depression was negatively correlated with pro- or anti-British views. Pro- or anti-British views were based on attitudes towards Britain and British values, and on the willingness to engage in violence on behalf of or against the British army in Afghanistan. Based on their study, Coid et al. (2016) theorised that strong religious or political identity and active support or opposition to an ideological cause may be a protective factor against depression rather than depression resulting in more extremist beliefs. However, this study is correlational in design and so the causal attributions of the authors should be interpreted with caution. More findings that do not support the link between mental health difficulties and radicalisation are found in a study exploring personal strain (Nivette, Eisner, & Ribeaud, 2017). Personal strain is characterised by stressors that have a negative effect on an individual (e.g. family instability; stay at a psychiatric institution; Agnew & White, 1992). Nivette et al. (2017) found that there was a significant association between personal strain and support for violent extremism; however, personal strain explained very little of the variance once other variables were included, such as poor coping skills. Thus, conflicting findings in the research signify that research regarding the link between psychopathology and radicalisation should be interpreted with caution and not without considering the influence of other variables (e.g. coping skills; resilience).

Similarly, personality disorders have been associated with individuals who have engaged with terrorism (Gottschalk & Gottschalk, 2004; Locicero & Sinclair, 2008; Merari, Diamant, Bibi, Broshi, & Zakin, 2010). For example, failed suicide bombers have been found to be significantly more likely than matched controls to meet diagnostic criteria for avoidant and dependent personality disorders in Middle Eastern samples (Gottschalk & Gottschalk, 2004; Merari et al., 2010). However, the presence of personality disorder-related traits in failed suicide bombers does not signify that personality disorders are more likely to present in all individuals who engage with terrorism (Corner et al., 2018). Terrorism is a varied activity and different types of terrorism have found to be associated



with differing psychopathological profiles (Corner & Gill, 2015; Gruenewald, Chermak, & Freilich, 2013). This may have implications for understanding the potential link between psychopathology and radicalisation and will now be discussed.

Comparing the psychopathological profiles of lone and group-affiliated right-wing terrorists, Gruenewald et al. (2013) found that lone right-wing terrorists were significantly more likely to have experienced mental illness (40% vs 8%) and this finding has been replicated (Corner & Gill, 2015). Similarly, Corner et al. (2018) found higher prevalence rates for schizophrenia, delusional disorder and autism spectrum condition (ASC) in lone terrorists compared to the general population. Thus, it could be inferred that an individual's psychopathological profile may influence in what way they may engage with the radicalisation process should they choose to. Further research into group-based terrorists, such as the Irish Republican Army (IRA), Northern Ireland loyalists and Basque Homeland and Liberty (ETA) have found that recruits tend to be psychologically normal (Crenshaw, 1981; Hollywood, Burgess, & Ferguson, 2008). These findings link to Gottfredson's (1990) control theory which posits that terrorists are more controlled and calculated than normal criminals and thus are less likely to have mental health difficulties as this would be less advantageous in engaging productively with terrorist plots (Corner & Gill, 2015; Gottfredson, 1990). However, control theory may create a false dichotomy which places individuals who are willing to engage in violence into two distinct categories: a rational terrorist or an irrational person (Corner & Gill, 2015). This may be overly simplistic as lone actors with mental illness have been found to have rational motives (Gill, Horgan, & Deckert, 2014) and, conversely, lone actors with psychosis have had their delusional fixations interpreted as rational, politically motivated beliefs (James et al., 2007).

Thus, it would appear that psychopathology can only ever be one of the many factors to consider when understanding the radicalisation process (Corner et al., 2018). The research appears to show that psychopathology may play less of a role in the radicalisation process of group-affiliated radicals and be more relevant when considering the radicalisation of lone-actor terrorists (Corner & Gill, 2015; Corner et al., 2018; Gruenewald et al., 2013). However, the presence of psychopathology and radicalisation does not imply a causal link and this is important to clarify as mental health difficulties can still be associated with societal stigma (Yakeley & Taylor, 2017). Conversely, political agendas may wish to disassociate psychopathology and radicalisation/terrorism so that individuals do not

evade responsibility for their crimes (Yakeley & Taylor, 2017). Therefore, the conflictual correlational research critiqued should not be dismissed and may be best considered in conjunction with the social, ecological and psychological factors that may be having concurrent influence. However, it is also important to consider individual factors that may not be as a result of psychopathology and may be linked to individual dispositions or character traits.

### 2.1.2 Dispositional theories of radicalisation

Like psychopathological theories of radicalisation, dispositional theories endeavour to explain the propensity to radicalisation by linking it to internal dispositions or mindsets (Lauriola, Foschi, & Marchegiani, 2015; Stankov, Knezevic, Saucier, Radovic, & Milovanovic, 2018; Yilmaz & Saribay, 2016).

This section will begin with definitions of political conservatism and liberalism and convey how these belief systems may interact with radicalisation or extremism, according to dispositional theories (e.g. De Zavala, Cislak, & Wesolowska, 2010). Political conservatism can be defined as “a political philosophy which aspires to the preservation of what is thought to be the best in established society (e.g. traditional values) and opposes radical change” (A Concise Oxford Dictionary of Politics and International Relations (CODPIR), 2019). Political liberalism can be defined as “the belief that the aim of politics is to preserve individual rights and to maximize freedom of choice” (CODPR, 2019). Research on individual differences in cognitive style and cognitive ability has led to dispositional perspectives on liberalism and conservatism and these perspectives may have implications for radicalisation (Evans & Stanovich, 2013; Webber et al., 2018). For example, political conservatism has been associated with a preference for aggressive actions towards the outgroup (De Zavala et al., 2010). Furthermore, Lauriola et al. (2015) posit that a *totalitarian mindset* (TM) has similarities with right-wing radicalism, a combination of conservatism and right-wing political values. A TM is defined as a mindset that displays consistent patterns of thinking and behaviour that favours extreme closed-mindedness and conveys an intolerance of difference and ambiguity (Montuori, 2005). Thus, cognitive style and cognitive ability and its potential relation to radicalisation will now be discussed.

Dual process or dual system theories propose that there are two types of thinking style: intuitive and analytic (Evans & Stanovich, 2013; Kahneman, 2011). Intuitive thinking is characterised as automatic and quick, requiring less working memory; whilst, analytic thinking is characterised as deliberate and slow, requiring more working memory resources, making it more effortful (Evans & Stanovich, 2013). In correlational studies, liberals have been found to think more analytically and conservatives have been found to think more intuitively (Eidelman, Crandall, Goodman, & Blanchar, 2012). For example, Deppe et al. (2015) found that conservatives were dispositionally less reflective and

liberals more reflective in relation to social issues, as measured by the Cognitive Reflection Test (CRT). The CRT is a test used to assess the tendency to think analytically (Frederick, 2005). The dispositional perspective would posit that liberals and conservatives think differently as a result of their cognitive style. This is further supported by research showing that activation in the anterior cingulate cortex (ACC) has been found to be negatively associated with political conservatism (Amodio, Jost, Master, & Yee, 2007). The ACC is a zone critical in conflict monitoring, which is a cognitive mechanism for dealing with when a usual response may have to be adapted based on the receipt of conflicting information (Amodio et al., 2007). Engaging this mechanism is therefore associated with more cognitive flexibility and analytic thinking which has been found to be more linked with liberals than conservatives (Amodio et al., 2007).

Dispositional perspectives assert that these cognitive styles are more stable and less resistant to change. Structural brain differences may support this view. For example, those who self-report as more liberal have been found to have more grey matter in the ACC, with those identifying as more conservative having greater volume in the right amygdala, an area associated with the processing of emotions (Kanai, Feilden, Firth, & Rees, 2011). Felt emotion regarding social issues (e.g. abortion; immigration; gay marriage) can serve as a heuristic, a mental short-cut to allow individuals to solve problems or make judgements quickly and efficiently. Heuristics associated with implicit reasoning have been found to be more commonly used amongst conservatives (Bizer et al., 2004) and are associated with more intuitive thinking.

Conservatism has also been associated with a need for cognitive closure (De Zavala et al., 2010; Jost, Glaser, Kruglanski, & Sulloway, 2003), which is a tendency towards predictability, order, and making clear unambiguous judgements (Webster & Kruglanski, 1994). The need for cognitive closure could also be associated with an intuitive thinking style because relying on clear unambiguous judgements requires less reflective processing. Furthermore, De Zavala et al. (2010) found that this need for cognitive closure was associated with greater hostility towards Arab and Muslim groups only amongst conservatives and not liberals, as measured by the *Liberal-Conservative Self-Placement* scale and the *Aggressive Actions in Conflict* scale (De Zavala, 2005; De Zavala et al., 2010).

Additionally, cognitive ability and social conservatism have also been found to be negatively correlated (Onraet et al., 2015) and individuals with high cognitive ability have been found to engage in more analytic thinking (Zuckerman, Silberman, & Hall, 2013). Consequently, it could be posited that those with low cognitive ability, and a tendency towards an intuitive thinking style may be more likely to engage in *black and white* thinking, which could make them more vulnerable to increased rigidity of thought. Accordingly, a tendency to observe inter-group relations in simplistic, binary terms (e.g. good vs. evil) has been found to predict behaviours associated with right-wing radicalism and is a tendency inherent in a TM (Lauriola et al., 2015).

Although the research may make it appear that conservatism may be more likely than liberalism to influence radicalisation, it is also the case that individuals may espouse liberal values, whilst still engaging in ways more associated with conservatism (e.g. a preference for clear, unambiguous ways of dealing with issues; intuitive rather than analytic thinking). For example, the term the *regressive left* was coined in response to the view that certain factions of people associated with left-wing politics (also dubbed *social justice warriors*) were viewed as denying liberal values of individual rights and freedoms and free speech to consistently ensure that religious and/or cultural beliefs go uncriticised (Harris & Nawaz, 2015). Pallardy (2019) comments that the political tactics of the *regressive left* can involve *self-sealing ideologies*, an ideology that cannot be refuted regardless of the evidence or arguments put forward to challenge it (Blair, 2011). For example, a self-sealing *regressive left* ideology would posit that negative views of homosexuality cannot be challenged within Catholicism (France-Presse, 2018) and Islam (Perraudin, 2016) because religious beliefs must always be accepted and respected and that challenges represent prejudice and must be suppressed. In this way, the views of the regressive left may represent a form of extremism, as defined in the UK (HM Government, 2015a; Scarcella et al., 2016), as the suppression of disagreement could be viewed as the vocal or active opposition to contemporary values of freedom of choice. Therefore, it is important to note that the labels individuals identify with (e.g. liberal or conservative) may not always convey the underlying cognitive style associated with the label that exists in the research.

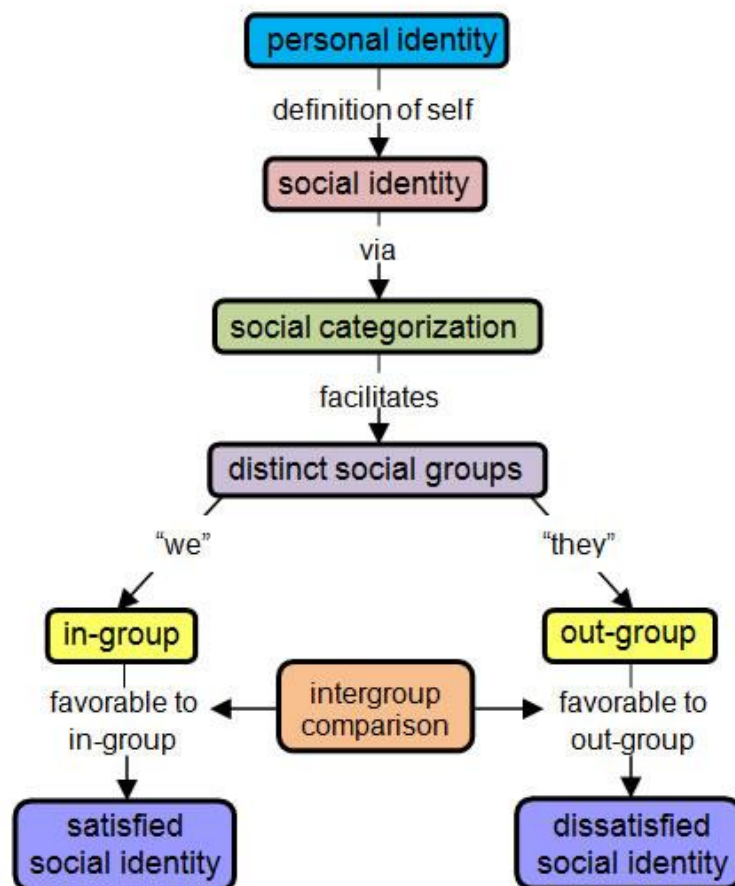
The *militant extremist mindset* (MEM) may also relate to the process of radicalisation. The MEM is composed of beliefs of pro-violence, a vile world and a divine power and has been found to be typical of members of terrorist groups (Stankov et al., 2018; Stankov, Saucier, & Knezevic, 2010). Stankov et al. (2018) purport that the scales they have developed to measure MEM could be used as a vulnerability assessment tool for radicalisation/terrorist involvement. However, it would be overly simplistic to suppose that an individual is born with a MEM and it is only those that go on to engage in extremism. For example, Mededovic and Petrovic (2016) found that inter-group conflict facilitated the development of MEM via the radicalisation of conservative attitudes. Similarly, mortality salience (prompting someone to think of their mortality) has been found to prompt liberals to adopt more conservative attitudes in response to homosexuality, abortion and capital punishment, showing the possible changing nature of supposed internal dispositions (Nail, McGregor, Drinkwater, Steele, & Thompson, 2009). This was measured by assessing responses to questions about Pro-American and Anti-American essays and the study found increased in-group favouritism amongst liberal students, similar to that of more conservative students, following a system-injustice threat (Nail et al., 2009). Thus, whilst individual differences in cognitive style, ability and mindset may exist, it is difficult to disconnect these differences from the complex political, cultural and social context in which they are embedded (Horgan, 2008). Like psychopathological theories, it is also important that dispositional influences are not dismissed either. Carnahan and McFarland's replication of the Stanford Prison experiment recruitment process (2007) found that those that signed up for the prison experiment versus an experiment with no mention of prison scored significantly higher on measures of aggressiveness, authoritarianism, social dominance and Machiavellianism. Participants also scored significantly lower on dispositional scales of empathy and altruism. Therefore, it may also be that those with certain dispositions seek out situations or others that will allow them to engage with the world in ways that align with their mindset.

To understand the process of radicalisation, an analytic approach that values different perspectives may be beneficial rather than endeavouring to attribute one theoretical perspective as having exclusive influence. It is also important to consider theories that explore influences beyond those that occur at the individual level. The following part of the literature review will now consider social influences on the radicalisation process.

### 2.1.3 Social theories of radicalisation

Relevant social theories pertaining to radicalisation tend to focus on the role of identity, intra-group and inter-group dynamics (Hogg, 2007; Hogg, 2014; Hogg & Adelman, 2013; Simon, Reichert, & Grabow, 2013). How social groups are viewed in society can propagate and maintain radical ideologies and behaviour (Della Porta, 2013; O'Donnell, 2016; Swann, Jr., Jetten, Gomez, Whitehouse, & Bastian, 2012). This literature will now be critiqued to develop an understanding of how social theories may help develop an understanding of radicalisation.

Social identity theory (SIT; *Figure 1*) posits that an individual develops a sense of who they are based on which social groups they identify with (Hogg, 2007).



*Figure 1.* A visual representation of social identity theory

Drawing on SIT, uncertainty-identity theory (UIT) (Hogg, 2007) proposes that uncertainty about self-identity prompts individuals to form groups or become members of desirable groups. This is because identification with a group reduces levels of personal uncertainty as group prototypes become more salient and personal identity or values become less important. These group prototypes describe and prescribe how people within the groups should behave and interact with each other and therefore reduce the pressure for individuals to draw on self-identity to navigate uncertain situations or personal crises (Hogg, 2007). This group identification is associated with the social categorisation of self and others and categorizes individuals into in-group or out-group categories (Hogg, 2007; Hogg, Meehan, & Farquharson, 2010; Siegel et al., 2012).

However, social groups differ in their entitativity and this may have relevance for those who join radical groups (Hogg, Meehan, et al., 2010). Entitativity refers to the level at which a group is perceived to be a whole entity, not the sum of distinct individuals (Hogg, Meehan, et al., 2010). Highly entitative groups are marked by group prototypes that are clear, unambiguous, highly prescriptive and focused, and so, they provide greater reductions in self-uncertainty than low entitative groups (Hogg, Adelman, & Blagg, 2010; Hogg, Meehan, et al., 2010). Most extremist groups are highly entitative as they are often marked by rigid and closed boundaries, internal homogeneity and group prototype agreement, and a hierarchal structure (Hogg, Meehan, et al., 2010). Empirical research has found that identifying with high entitative groups is more likely in times of personal uncertainty (Hogg, 2014; Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007). For example, Hogg, Meehan et al. (2010) found that when moderate college students were primed to feel uncertain about themselves, they more strongly identified with a highly entitative radical group despite having aligned themselves previously with a moderate group. They also had significantly stronger intentions to engage in behaviour on behalf of that group after being primed to feel uncertain. This is a robust study of 82 participants in which the videos used to prime uncertainty were piloted for credibility and efficacy and the level of uncertainty actually experienced was measured after the study. However, the study does not dissect the radical components of the group conveyed to the participants to further understand how the varying elements may have affected group identification differently (Hogg, Meehan, et al., 2010), nor can the behavioural intentions of the participants be followed up due to the experimental nature of the study. Nevertheless, Hogg, Meehan et al. (2010) assert that group identification and behavioural



intention may become problematic if those who identify with a radical group intend to engage in the extremist behaviour prescribed and expected by the group. Research has found that specific behavioural intentions have been found to be a good predictor of actual behaviour (Ajzen & Fishbein, 1977; Sheeran, 2002; Sheeran & Webb, 2016) and that the link between intentions and behaviour is strengthened when the intention is normative of a social group with which one identifies (Hogg & Smith, 2007; Terry & Hogg, 1996). Thus, the dynamics and structure of a radical social group may prove alluring to some individuals who have difficulty coping with uncertainty and therefore could influence the radicalisation process.

SIT and UIT posit that the willingness to adopt and engage in group prototypes occurs as a result of group identification and being a part of the group, and thus these individuals may be less likely to engage in these behaviours as individuals in isolation (Klandermans, Sabucedo, Rodriguez, & Weerd, 2002; Swann, Gomez, Dovidio, Hart, & Jetten, 2010). However, identity fusion theory proposes that certain individuals develop a visceral feeling of oneness with the group in which the characteristics of the personal self and the social-self fuse together (Swann, Jr. et al., 2012). This results in a powerful sense of connectedness to the group as the essence of the group values are shared, however, the unique, idiosyncratic nature of each individual is also appreciated and maintained (Gomez & Vazquez, 2015; Swann, Jr. et al., 2012). In this way, individuals retain personal agency to engage in behaviours that promote the group's aims and can act on these independently of the group also. This has implications for radicalisation as identity fusion has been found to predict willingness to fight and die for the in-group (Swann et al., 2010; Swann, Jr. et al., 2014) and to predict advocacy of the use of violence to promote current social system change (Besta, Szulc, & Jaskiewicz, 2015). The effects of identity fusion on radical beliefs appear to be stronger than group identification (Swann et al., 2010; Swann, Jr. et al., 2014) or group membership (Besta et al., 2015) alone. This highlights that how one relates to the group may be more important than merely being part of or only identifying with the group, with identity fusion potentially being a particularly potent orientation. Whilst, identity fusion theory provides an insight into how 'fused' individuals may be more likely to engage in pro-group behaviour alone or within the group, it provides less information about what may prompt an individual to become 'fused' in the first place and thus may be less helpful in understanding steps towards radicalisation.

In terms of inter-group dynamics, the role of dual identity will now be discussed. Firstly, it is important to define the terms *minority* and *majority* which become relevant in reference to dual identity. The terms can refer to statistical minorities and majorities, which can then differ nationally and locally. However, Barzilai (2010) notes that ethnic groups living in a local majority may still have less power than a national majority group. Thus, in the thesis, minority refers to groups that are perceived to have less power or influence than a national majority group (e.g. White British) due to their smaller size and reduced representation nationally in positions of power and influence. For example, in May 2019, only 8% of the House of Commons (i.e. members of the UK parliament) came from a non-white background and this does not appear proportionate to the population numbers in British society (Browning, 2019). Therefore, dual identity can be defined as when an individual identifies with an ethnic minority in-group, and a society in which he/she lives that is deemed superior in terms of power or status (Doosje, van den Bos, Loseman, Feddes, & Mann, 2012; Simon et al., 2013). Dual identity is generally proposed to foster political action that is legitimized by the society in which the individual lives (e.g. non-violent protest) (Simon & Ruhs, 2008) and there is little evidence to suggest that the pursuit of political reform is linked to radicalisation (Mandaville, 2009; O'Donnell, 2016). However, vulnerabilities to radicalisation regarding dual identity have also been noted (Simon et al., 2013). For example, a longitudinal study of Turkish and Russian migrants in Germany found that participants who perceived that their two identities were incompatible had increased likelihood of sympathies towards radical action (Simon et al., 2013). This does not imply that dual identity alone deems someone vulnerable to radicalisation, but it is how an individual may negotiate competing and conflicting identity values that could lead to vulnerabilities (Simon et al., 2013). This distinction may be important in the UK context in which minority groups, like Muslims, are often compelled by government initiatives such as *Prevent* to 'assimilate' and demonstrate their fidelity to Britain and British values (HM Government, 2015; Mandaville, 2009). This may be as a result of a binary construction of identity, where identity is either British or based on religious or political affiliation. In this way, ideas of integration and loyalty are confused with issues of radicalisation and terrorism and can result in further alienation of minority groups (Lynch, 2013). For example, a study of the views of British Muslim youth found that they felt that they were viewed as a 'threatening

other' by the majority of society and that engaging in political protest, related to the treatment of Muslims, was viewed as opposing Britishness (Lynch, 2013). Similarly, Doosje et al. (2013) found that radical beliefs amongst Dutch Muslim youth were predicted, amongst other variables, by perceptions that their ethnic minority was treated less fairly in comparison to others in society. Importantly, Della Porta's *Theory of Clandestine Political Violence* (2013) explains how escalating policing of certain groups can ignite social movements, especially when non-violent political action is suppressed or government responses to it are deemed an over-reaction. Thus, the societal treatment of various social groups and/or identities may also influence the development of radical belief systems which may or may not lead to radical action.

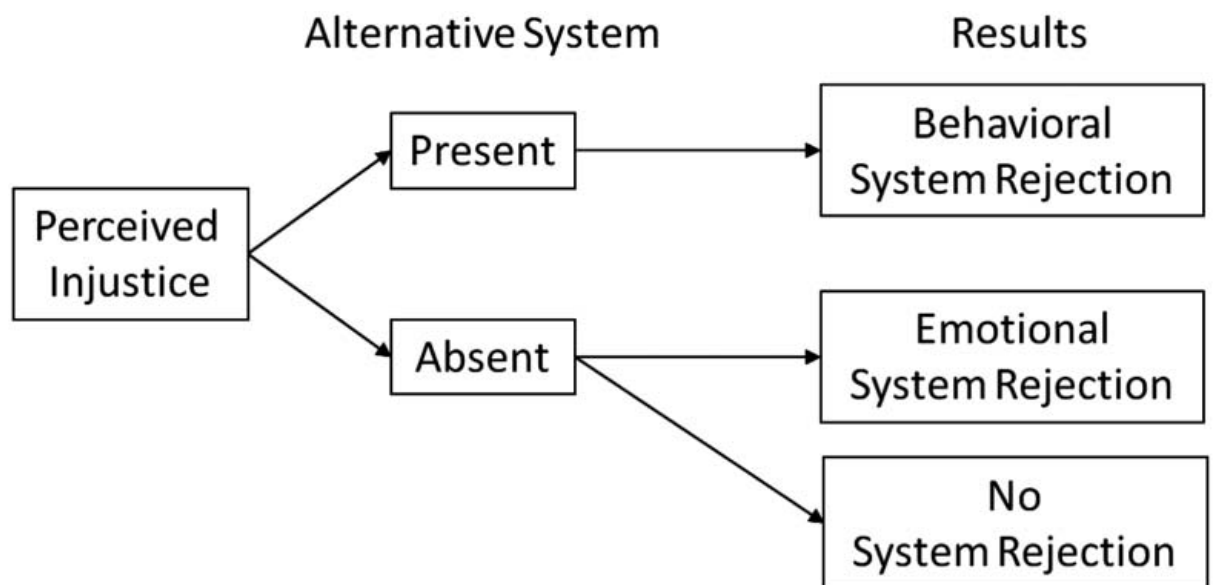
Social theories provide some insight into how social identity, intra- and inter-group dynamics may play a role in how an individual decides to align with a radical group. They primarily place emphasis on the role of the group in radicalisation. However, a consideration of individual factors in conjunction with these group processes is advantageous. For example, considering the psychopathological and dispositional influences in combination with identity fusion theory could provide an explanation into pathways to radicalisation amongst 'lone-wolf' radicals. Psychological theories of radicalisation will now be discussed to explore further why certain individuals may be propelled towards extremism and extremist groups and others are not.

## **2.1.4 Psychological theories of radicalisation**

Psychological theoretical perspectives reflect how psychological mechanisms may influence the radicalisation process. The following theoretical perspectives will now be discussed and critiqued: the system rejection model of radicalisation (Bal & van den Bos, 2017); the meaning maintenance model (Heine, Proulx, & Vohs, 2006); compensatory control theory (Kay & Eibach, 2013); and reactive approach motivation (RAM) theory (McGregor et al., 2013).

### **2.1.4.1 A critique of the system rejection model**

The system rejection model (See Figure 2) constructs terrorism or extremist behaviour as a tool used to achieve a certain goal (Bal & van den Bos, 2017). This goal-orientated behaviour is proposed to stem from perceived injustice and the presence of an alternative system (e.g. an extremist group or organisation) that will help achieve this goal, usually associated with increased justice, fairness or equality (Bal & van den Bos, 2017). The presence of an alternative system results in a rejection of the mainstream system and the adoption of the new alternative system. In the absence of an alternative system, individuals can just accept the status quo (no system rejection) or engage in emotional system rejection, where the mainstream system is rejected, and highly emotional states are directed towards that mainstream system. In this way, emotional system rejection is more passive than behavioural system rejection. Perceived injustice is central to the model, and studies of Islamic and right-wing radicals have found that perceived unfairness or injustice play a pivotal role in the radicalisation process (Doosje et al., 2013; Doosje et al., 2012). However, the model only endeavours to explain the processes by which an individual joins an extremist group or organisation, and fails to explain why an individual may create their own extremist group when there is an absence of an alternative system or why they may sustain their engagement with the group (Bal & van den Bos, 2017) or what may motivate a lone-actor who engages in extremism independently of an alternative system. Thus, the model's attempt at simplifying a complex issue may result in limited applicability to the various nuances of the radicalisation process.



*Figure 2.* A visual representation of the system rejection model of radicalisation (Bal & van den Bos, 2017)

#### 2.1.4.2 A critique of the meaning maintenance model

The meaning maintenance model (MMM; Heine et al., 2006) proposes that people have a need to view their life as meaningful and coherent. The model proposes that an individual's meaning system is dependent on meeting the following needs: self-esteem; closure and certainty; affiliation; and symbolic immortality (i.e. that their life has a meaning beyond their existence and can live on through their societal contributions). When an individual has these needs met, he/she will have a sense of meaning and coherence. Furthermore, the model refers to four conditions (a just community; unambiguous standards; lasting values; and extensive capabilities and experience; Table 5 below) that allow for meaning and coherence to be maintained (Mohamed Ali, Moss, Barrelle, & Lentini, 2017).

Table 5 *The Four Conditions of the Meaning Maintenance Model (Heine et al., 2006; Mohamed Ali et al., 2017)*

Condition	Condition Summary
<b>Just Community</b>	This refers to beliefs that the world is fair and just and as a result, that actions engaged in will be useful and purposeful to reach future goals.
<b>Unambiguous standards</b>	This refers to an individual's need to understand clearly what duties or roles are required or expected of him/her.
<b>Lasting Values</b>	This refers to beliefs that the value and priorities of society will be consistent over time and that actions associated with these values and priorities will be useful and purposeful to reach future goals.
<b>Extensive Capabilities &amp; Experience</b>	This refers to an individual believing they have extensive capabilities and experience to allow them to fulfil future goals.

Inherent in the MMM, is the connection between a sense of meaning and the behaviours engaged to fulfil goals. In five different studies conducted with students, Van Tilburg and Igou (2013) found that the value placed on behaviour was dependent on how instrumental the behaviour was in achieving a future goal, and behaviour was deemed especially meaningful if the goal was highly valued. However, Mohamed Ali et al. (2017) posit that pathways to radicalisation may be ignited when the four conditions of the MMM are violated or threatened, as it elicits compensatory behaviours. People may compensate by reaffirming intact schema, a pattern of thought or behaviour that organizes categories of information and the relationship between them (Mohamed Ali et al., 2017). Alternatively, they may create new, more meaningful connections through modes of radicalisation (Mohamed Ali et al., 2017). For example, the belief in a just world is incongruent with perceived injustice or discrimination. Thus, Mohamed Ali et al. (2017) would posit that revenge may be a new way of returning to a 'just world' that may provide people with meaning. For example, Stankov et al. (2010) found that themes of avenging past grievances were common amongst documents and text disseminated by extremists in an extensive content analysis. Furthermore, meaning threat has been found to be associated with a tendency towards groups that provide high cognitive closure or are highly entitative (Pierro, Mannetti, De Grada, Livi, & Kruglanski, 2003; Van Tongeren & Green, 2010), as discussed in social theories. For example, when individuals are primed with words that imply futility and incoherence, they tend to display a preference for predictability, order, routine and familiar settings (Van Tongeren & Green, 2010). Thus, threats to meaning could bring about a tendency towards extremist groups or ideologies as they provide methods to realign individuals with the four conditions proposed by MMM to imbue life with meaning and coherence (i.e. a just community; unambiguous standards; lasting values; extensive capabilities and experience). However, a critique of the model suggests that it does not seek to explain which meaning frameworks people seek and which they avoid and the model assumes that people respond to threats in highly similar ways (Pyszczynski et al., 2015). For example, death and priming thoughts of death (mortality salience) have been associated with compensatory behaviours, such as increased conservatism and worldview defence (Pyszczynski et al., 2015; Vergani, O'Brien, Lentini, & Barton, 2018). MMM would posit that mortality salience threatens individuals' sense of meaning, however different individuals will tend towards different meaning frameworks (e.g. consciousness ends when you die; your consciousness continues to exist in another realm) and MMM does not account for individual variability

in meaning making (Pyszczynski et al., 2015). Thus, the MMM in isolation may not explain clearly why certain people seek out meaning and coherence through extremism and others seek it out in different ways.



#### **2.1.4.3 A critique of compensatory control theory**

Compensatory control theory (CCT) (Kay & Eibach, 2013) endeavours to overcome the difficulties inherent in the MMM by explaining why certain types of people may tend towards a particular ideology and by proposing an alluring commonality amongst all ideologies. CCT posits that individuals have a desire to live in an ordered world in which they feel they have personal control of what happens to them (Kay & Eibach, 2013). A belief in personal control serves to protect individuals from the idea that life is random and arbitrary, which can be anxiety-provoking (Kay, Gaucher, McGregor, & Nash, 2010). In the absence of perceived personal control, alternative ways of achieving a sense of control can be facilitated through a tendency towards personal, societal or religious control ideologies (Kay & Eibach, 2013). These ideologies may provide a sense of control and an individual's tendency towards an ideology may depend on their worldview (Kay & Eibach, 2013). For example, personal control along with limited societal and governmental control is emphasised in libertarian ideologies; societal control may emphasise the power of government to restore order in society and be helpful to those that have faith in government; and religious or supernatural control may emphasise that God has a plan for humanity and is therefore in control, attracting those that have faith in their religion (Kay & Eibach, 2013). Empirical support for CCT has found that temporarily lowering feelings of personal control increases a tendency towards beliefs in a controlling God (Kay et al., 2010), increased preferences for governmental control (Kay, Gaucher, Napier, Callan, & Laurin, 2008) and lower tolerance for ambiguity (Ma & Kay, 2017). Importantly, when one source of control is lacking, research has shown that individuals can increase their reliance on other sources of control (Kay et al., 2010). However, in extremism, Kay & Eibach (2013) propose that other sources of control are discounted, and one ideology is fervently adhered to. This can happen because other sources of control are less accessible. For example, individuals in collectivist cultures may draw on interdependent models of control and may be less likely to believe that they have individual control over their destiny (Young & Morris, 2004). Similarly, perceived governmental corruption or perceived injustices that derive from governmental action or inaction are less likely to prompt individuals to support governmental control (Kay et al., 2008). Thus, contextual circumstances may propel individuals to adopt an extremist ideology to combat a perceived lack of control, when other control sources are not accessible or are inadequate to meet the individual's needs.

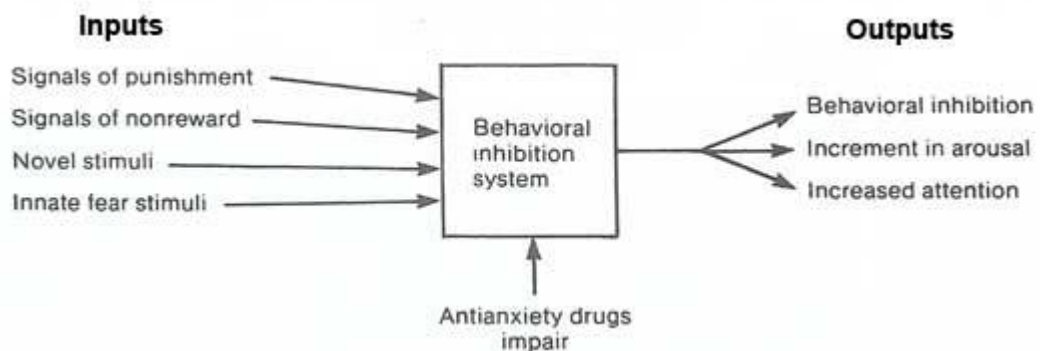
However, like MMM, when a number of compensatory control sources are available, CCT does not appear to account for individual differences in how individuals choose to regain control (Landau, Kay, & Whitson, 2015). This may be because the majority of CCT studies did not provide opportunities for participants to choose from a number of different compensatory strategies and thus, this was not explored (Landau et al., 2015). Reactive approach motivation (RAM) theory (McGregor et al., 2013) will now be considered. Shepherd et al. (2011) suggest an alternative interpretation of the need for control in CCT could be that it reflects indirect efforts to cope with psychological discomfort (e.g. discomfort that derives from uncertainty or anxiety), rather than it being a generic need for control itself.

#### **2.1.4.4 A critique of reactive approach motivation theory**

RAM theory (McGregor et al., 2013) still constructs extremism as a compensatory behaviour; however, rather than the need to feel in control, personal uncertainty is implicated as the key driver towards ideological extremes. Approach motivation is pivotal in RAM theory and is deemed to occur when individuals are fervently motivated towards something or by something that they have evaluated positively (Elliot, 2006). Within this approach-motivated state, it has been found that feelings of clarity ensue, and other issues or conflicts become less important and less relevant (McGregor et al., 2013). RAM theory proposes that personal uncertainty arising from motivational conflict gives rise to anxiety (McGregor, Nash, Mann, & Phills, 2010; McGregor et al., 2013). Motivational conflict can occur when one has two competing goals (for example, being motivated to both eat chocolate and lose weight) or when a goal is thwarted in some way (for example, having a lack of money to afford to go to a desired university), both of which could result in personal uncertainty and, consequently, anxiety (Klackl, Jonas, & Fritzsche, 2018). When in this anxiety-laden state, RAM theory posits that individuals are more likely to engage in religious, idealistic, or behavioural extremes because these extremes activate approach-motivated states which lessen feelings of anxiety and provide a clear focus in uncertain times (McGregor et al., 2013). Accordingly, following expressions of certainty regarding idealistic beliefs, participants in studies reported that goal conflicts were less salient, significant and urgent (McGregor, 2006; McGregor & Marigold, 2003; McGregor, Nail, Marigold, & Kang, 2005).

The theoretical underpinnings of RAM theory derive from the neuropsychological anxiety research of Gray (1982) and Gray and McNaughton (2000; 2003) who proposed that vertebrates have evolved a neural module called the behavioural inhibition system (BIS) to cope with goal conflict. The hippocampal region of the brain is implicated in BIS functioning, particularly in the interpreting and responding to unpleasant, challenging or novel stimuli (Gray & McNaughton, 2003). When the BIS detects conflicts between concurrently active goals, it is posited to inhibit behaviour to allow the individual to process more information regarding the current conflict and decide on the best course of action (Klackl et al., 2018). Furthermore, the BIS increases arousal and attention to facilitate this process (See Figure 3; Gray & McNaughton, 2000). The personal uncertainty that results from the motivational conflict could rouse feelings of anxiety and

stimulate the BIS to facilitate motivation towards an alternative, more tenable, sub-goal, which could result in equifinality (i.e. thereby arriving at the original goal in another way) (Nash, McGregor, & Prentice, 2011). Alternatively, the personal uncertainty could result in RAM, the pursuit of an unrelated, but positively evaluated, goal as it reduces the personal uncertainty inherent in the initial motivational conflict (Nash et al., 2011).



*Figure 3.* Gray & McNaughton's behavioural inhibition system (2000)

Importantly, research regarding the BIS is supported by pharmacological studies on rats and humans which find that the septo-hippocampal region (Gray, 1982) and the anterior cingulate cortex (ACC; Gray & McNaughton, 2000) are also integral to the BIS. For example, the ACC has been found to be involved in the processing of errors, conflict and surprise in functional neuroimaging studies (Klackl et al., 2018; Stevens, Hurley & Taber, 2011). The research pertaining to the BIS has informed the structure of the empirical research used to explore RAM and its potential link to ideological extremes. Within the context of radicalisation, difficulties dealing with feelings of personal uncertainty could make people more vulnerable to seeking refuge in the clarity of extreme ideologies and it could be the BIS that facilitates this (Hogg, Kruglanski, & van den Bos, 2013; McGregor et al., 2013).

There is a robust experimental evidence base on RAM and its link to ideological extremes in the literature (McGregor, Haji, Nash, & Teper, 2008; McGregor & Marigold, 2003; McGregor, Nash, & Prentice, 2010; McGregor et al., 2013; Nash et al., 2011). For example, research has found that priming personal uncertainty (for example, asking participants to reflect on a personal dilemma) leads to an increased zealotry for one's own religious beliefs, an increase in derogatory views of others' religious beliefs and significantly increases willingness to support religious warfare compared to controls

(McGregor et al., 2008). Additionally, priming academic uncertainty has been found to boost scores on religious zeal subscales- integrity (e.g. “My religious beliefs are grounded in truth”), jingoism (e.g. “If everyone followed my religious beliefs the world would be a better place”) and extremism (e.g. “If I really had to, I would give up my life for my religious beliefs”; McGregor, Nash, & Prentice, 2010).

Furthermore, McGregor et al. (2001) found that after personal uncertainty was primed, there was increased conviction in personal ideologies and goals associated with that personal ideology; importantly, this also led participants to make plans to achieve goals more relevant to personal values when compared to controls. Thus, not only can personal uncertainty bring about ideological extremes, but it can influence the vigour with which one behaviourally pursues those ideologies. Lastly, McGregor et al. (2013) conducted five studies consolidating previous RAM research and found that uncertainty-related threats only stimulated RAM when they aroused personal uncertainty about active goals. Therefore, a key psychological process that may underpin the tendency towards radical ideals is personal uncertainty regarding current goals or aspirations (Hogg, Kruglanski, & van den Bos, 2013; McGregor et al., 2013). Consequently, efforts to facilitate more pro-social ways of dealing with personal uncertainty may serve as a preventative measure that could be utilised to reduce vulnerability to radicalisation in YP (McGregor et al., 2013; Sewell & Hulusi, 2016). Despite the robust evidence base for RAM theory, the following key critiques need to be considered:

- It could be argued that CCT, MMM and RAM theory are not distinct as they all construct extremism as a way of compensating with potentially anxiety-inducing difficulties (i.e. a perceived lack of control, a perceived threat to meaning, or motivational conflict which prompts personal uncertainty, respectively). However, McGregor et al. (2013) acknowledge that RAM research currently has not explored how CCT or MMM could be explicitly integrated into RAM theory. They posit that this could be facilitated by priming goals (i.e. getting an individual to reflect on a goal) before the presentation of threats to control or meaning to understand if goal pursuit is accentuated by these particular threats. In this way, CCT and MMM could be more robustly integrated into RAM theory.

- RAM research currently does not address the environmental conditions that may be more likely to promote the palliative function of RAM (i.e. reducing personal uncertainty via the relentless pursuit of an unrelated goal) versus the continued pursuit of the original goal under conflict (McGregor, Nash, Mann, et al., 2010). This emphasis on solely psychological influences may disregard key contextual factors that could be helpful in radicalisation prevention.
- Finally, the thesis posits that the experimental nature of the research may not be truly reflective of how motivational conflict and personal uncertainty is experienced in everyday life. Accordingly, the applicability of the research to other contexts should be interpreted with caution.

The psychological theories presented provide a more in-depth understanding of how radicalisation may be influenced by psychological processes. However, the similarities between the theories presented, the commonalities that appear to exist across theoretical perspectives (e.g. regarding uncertainty, anxiety, compensatory behaviours) and the various limitations of the perspectives appear to convey the potential usefulness of a holistic approach to understanding radicalisation. Accordingly, integrative theories endeavour to achieve that synergy between perspectives and will now be discussed.

### 2.1.5 Integrative theories

Integrative theories of radicalisation incorporate various theoretical perspectives. Naturally, aspects of social theories (group processes; UIT; dual identity) and psychological theories (perceived injustice; the quest for meaning; uncertainty) discussed earlier are also relevant to these theoretical models. Table 6 presents seven integrative models that view radicalisation as a transformation occurring via social and psychological processes (King & Taylor, 2011). The commonalities and discrepancies between these models will be identified and critiqued. Another integrative model of radicalisation that offers a unique perspective will also be presented. A brief outline of each of the models discussed is provided in Appendix C for further clarity.

Table 6 *The Stages or Factors of the Integrative Models of Radicalization (Adapted from King & Taylor, 2011)*

	<b>Author</b>	<b>Type of model</b>	<b>Stages or factors</b>
<b>A</b>	Borum (2004)	Linear, progressive	1. Social and economic deprivation 2. Inequality and resentment 3. Blame and attribution 4. Stereotyping and demonizing the enemy
<b>B</b>	Wiktorowicz (2005)	Linear & emergent	1. Cognitive opening 2. Religious seeking 3. Frame alignment 4. Socialization
<b>C</b>	Moghaddam (2005)	Linear, progressive	1. Psychological interpretation of material conditions 2. Perceived options to fight unfair treatment 3. Displacement of aggression 4. Moral engagement 5. Solidification of categorical thinking 6. The terrorist act
<b>D</b>	New York Police Department (Silber & Bhatt, 2007)	Linear	1. Pre-radicalization 2. Self-identification 3. Indoctrination 4. Jihadization
<b>E</b>	Sageman (2008)	Non-linear, emergent	1. Sense of moral outrage 2. Frame used to interpret the world 3. Resonance with personal experience 4. Mobilization through networks
<b>F</b>	Hafez & Mullins (2015)	Non-linear, emergent	1. Grievance 2. Networks 3. Ideology 4. Enabling environment

<b>G</b>	Webber & Kruglanski (2018)	Non-linear, emergent	1. Needs 2. Narratives 3. Networks
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The notion of radicalisation borne out of grievance or a concept called relative deprivation is common amongst the models (King & Taylor, 2011). Relative deprivation is a subjective phenomenon in which it is perceived that there is a lack of resources to sustain the life an individual/group is accustomed to or feels entitled to in comparison to another individual/group (King & Taylor, 2011). Personal relative deprivation has been found to be associated with low self-esteem and depression (Pettigrew et al., 2008); whilst group-based relative deprivation has been found to predict collective action and prejudice towards other groups (Pettigrew et al., 2008). Models A, C & F initiate in relative deprivation, and Model E's 'resonance with personal experience' occurs when the relative deprivation felt exacerbates the sense of moral outrage about world events (e.g. war) and the ideological narrative of an unjust out-group. For example, Piazza (2011) found that high rates of economic discrimination were a significant predictor of incidences of domestic terrorism in a statistical analysis of 172 countries. Moreover, the absence of approaches to reduce economic discrimination were also significant negative predictors of terrorism (Piazza, 2011). As mentioned previously, Doosje et al. have also found that perceived injustice and/or discrimination played a pivotal role in radicalisation amongst Dutch Muslim youth (Doosje et al., 2013; Doosje et al., 2012). Thus, in understanding radicalisation, individuals' views of the treatment of their group in comparison to another group or out-group may be more important than poverty and socio-economic status alone. This is corroborated by research that has found no relationship between poverty, socio-economic status or education level and terrorism (Krueger & Maleckova, 2003; Kruglanski & Fishman, 2009; Rink & Sharma, 2018).

Social capital plays a role in shaping, not only subjective perceptions and narratives inherent in the integrative models, but also the everyday realities of individuals within a society, which can either promote or deter the radicalisation process (Helfstein, 2014). Social capital is an ecological concept that encompasses the social assets and resources an individual or a group has access to (Bhui et al., 2014). Importantly, this 'capital' is fostered through rich social networks and can promote community cohesion and resilience (Bhui et al., 2014). Low social capital exists in a society marked by reduced networks and trust between groups and ambiguity regarding the rules and roles that govern society and is posited to result in low collaboration and antisocial behaviour



(Helfstein, 2014). However, there is confusion in the research literature on social capital and its link to radicalisation. Low social capital can promote marginalisation and make extremist groups more alluring or it can also hinder the social networks that facilitate extremism (Helfstein, 2014). Conversely, high social capital can provide a myriad of well-defined, rich social networks within which radicalisation can flourish or it can provide societal structures for individuals and groups to have their grievances listened to and establish social norms which deter violence (Helfstein, 2014). Although it may feel intuitive to endeavour to increase social capital of groups and individuals in a society, Bhui et al. (2014) found that those with low social capital were more likely than those with high social capital to condemn violent protest and terrorism amongst a population sample of 608 participants of Bangladeshi, Pakistani, or Muslim heritage in the UK. Social capital was defined in this study as having trust, satisfaction, and feelings of safety associated with living in the his/her local area. Similarly, higher social capital is positively correlated with the number of terrorist groups in a society (Helfstein, 2014). Social capital has positive benefits also. For example, two facets of social capital (per capita group membership and social trust) have been found to be negatively correlated with all-cause mortality in an ecological, cross-sectional study of 32 American states (Kawachi, Kennedy, Lochner, & Prothrow-Stith, 1997). Similarly, a longitudinal study found that low levels of trust between groups within American states (i.e. low social capital) was associated with increased homicides, even when income level and degree of urbanization were controlled for (Galea, Karpati, & Kennedy, 2002). The research conveys the complex and dynamic nature of social capital and its influence on societies and how this could also affect the perceptions of grievance and social networks discussed within the integrative models. However, whilst these ecological level factors undoubtedly have influence, personal identity-related issues are also widespread in the models and may serve to explain the differing individual responses to varying levels of social capital.

For example, Models B, D, E & G all reference a form of personal crisis that acts as a catalyst for radicalisation. For example, Webber and Kruglanski (2018) emphasise that a personal crisis can cause an individual to experience an uncomfortable discrepancy between the positive way he/she would like to be viewed and the negative way in which the crisis makes him/her feel (King & Taylor, 2011). These models purport that these crises can bring about uncertainty and the identification of external entities to blame, and adoption of ideological extremes can assist in remedying negative feelings by providing

a sense of purpose and significance (Sageman, 2008; Webber & Kruglanski, 2018; Wiktorowicz, 2005), as mentioned in Uncertainty Identity Theory (Hogg, 2007).

The role of extremist organizations and group processes is constructed differently in the various models and have different implications for the process of radicalisation (King & Taylor, 2011). The radicalisation processes in Models B & C emphasise that radicalised individuals elect to join extremist organisations and that these organizations play an integral role in the radicalisation pathway (Moghaddam, 2005; Webber & Kruglanski, 2018; Wiktorowicz, 2005). Conversely, Models D, E, F, G and H construct less of a role for extremist organisations in the radicalisation process. Instead, they view individuals who are radicalised as seeking out like-minded individuals with whom they further deepen their commitment to extremist ideologies (Sageman, 2008) and, in this way, they further distance themselves from society and mainstream norms (Doosje et al., 2013; Doosje et al., 2012). Additionally, Model F emphasises that a key opportunity factor that may influence the move from grievance to an extremist ideological narrative is existing social connections with those that already share similar views (Hafez & Mullins, 2015). Therefore, Sageman would posit that actual extremist organisations, like Islamic State (IS), have less of a direct influence on the radicalisation in young people; it is the social movement that is inspired by IS that is the real threat (King & Taylor, 2011; Sageman, 2008).

Some of the models are critiqued for the way religion and, specifically, Islam is implicated in the radicalisation process (Aly & Striegher, 2012; King & Taylor, 2011). It is important to consider the socio-political and cultural context to understand this potential Islamic bias in the literature. Since 2001, a series of high-profile terrorist attacks (e.g. 9/11 Twin Tower attack (2001); 7/7 London bombings (2005); Manchester Arena Bombing (2017); Paris attacks (2015)) have been perpetrated by terrorists associated with Islamic extremist groups and these attacks have received widespread media coverage, public attention and strong political responses (Sedgwick, 2010; Dearden, 2017; Travis, 2017). In response to the 9/11 Twin Tower attack, the United States of America (USA) waged war in Afghanistan, and this war was also supported by Britain (Vertigans, 2010). Additionally, Iraq was invaded by the USA in 2003 as it was deemed as an integral part of defeating terrorism, dubbed the *war on terror* (Vertigans, 2010). Vertigans (2010) posits that the fear of terrorism and the consequent *war on terror* and its impact has locked Western and Islamic nations in a “vicious spiral of reciprocal hatreds” (p.28).

Consequently, some models of radicalisation endeavour to understand the perceived pathways from Islam to terrorist attacks because that is the narrative that is reinforced in Western societies (Vertigans, 2010), but these models often give less consideration to the socio-political context that may also contribute (e.g. inter-nation conflict; foreign policy; Mythen et al., 2017). For example, Model B and D implicate a turn towards radical Islam as a core part of the process of radicalisation (Wiktorowicz, 2005; Silber & Bhatt, 2007). Additionally, Model B is based on ethnographic case studies of members of Al-Muhajiroun, which is a transnational Islamist organisation that promotes Islamic revolution and the creation of a worldwide Islamic State (Aly & Striegher, 2012; King & Taylor, 2011). Within these models, a personal crisis is implicated as the impetus to extremism, rather than also considering the socio-political context and consequent difficulties in inter-group relations. Therefore, these models could be interpreted as implying that a) radicalisation is a uniquely Islamic phenomenon and b) the Islamic religion or Islamic fundamentalism alone predicts violent extremism.

Fundamentalism refers to the belief in the certainty of one's religious views as the ultimate truth (Altemeyer & Hunsberger, 2004) and can be associated with a literal, non-negotiable interpretation of sacred texts (Altemeyer & Hunsberger, 2004; Pratt, 2010). Whilst the Quran contains suras that may be interpreted as endorsing extremist violence (Spencer, 2013), extremism exists in all religions (Pratt, 2010). Research also suggests that fundamentalism alone is not necessarily associated with militancy nor is it enough explain the move to extremist violence (Beller & Kroger, 2017; Sadowski, Endrass, & Zick, 2018). For example, whilst 60% and 87% of Muslim youth in a large-scale study in Egypt and Saudi Arabia have been identified as Islamic fundamentalists, only a tiny proportion go on to engage in terrorism (Beller & Kroger, 2017). Further research into Islamic fundamentalism has found that suicide bombers are no more religious than the general population (Ginges, Hansen, & Norenzayan, 2009) and that individual and personal aspects of religion (e.g. reading the Quran; individual prayer; frequency of prayer etc.) do not predict extremist violence (Beller & Kroger, 2017). Rather, increased support for extremist violence has been found to be predicted by the social aspects of religion (e.g. attending mosque) and perceptions that the out-group pose a threat to Islam (Beller & Kroger, 2017). It may be that the social aspects of religion provide opportunities for the social and group processes featured in many of the integrative and social models to influence individuals and may have less to do with religion itself. Fundamental

attribution error (Pettigrew, 1979) is a cognitive bias in which people emphasise the internal, individual cause of another individual's behaviour rather than considering potentially relevant external factors. In the case of Islam, individuals may explain violent extremism amongst Muslims by attributing blame to the most salient, individual feature that they have common, their religious identity. This may simplify a complex issue, but it does not consider the potent social and group processes inherent in the research that may be a more useful way of looking at the radicalisation process. In this way, the role of society and government in promoting radicalisation (e.g. through fostering economic discrimination; prejudicial views of minority groups; emphasis on the assimilation to 'British values') is acknowledged and may pave the way towards enacting positive change by tackling these societal issues.

Whilst the integrative models discussed adopt a socio-psychological perspective, Decety, Pape and Workman (2018) propose the multilevel social neuroscience model (MLSN) of radicalisation (See Figure 4 below and Appendix C for a brief outline of the model).

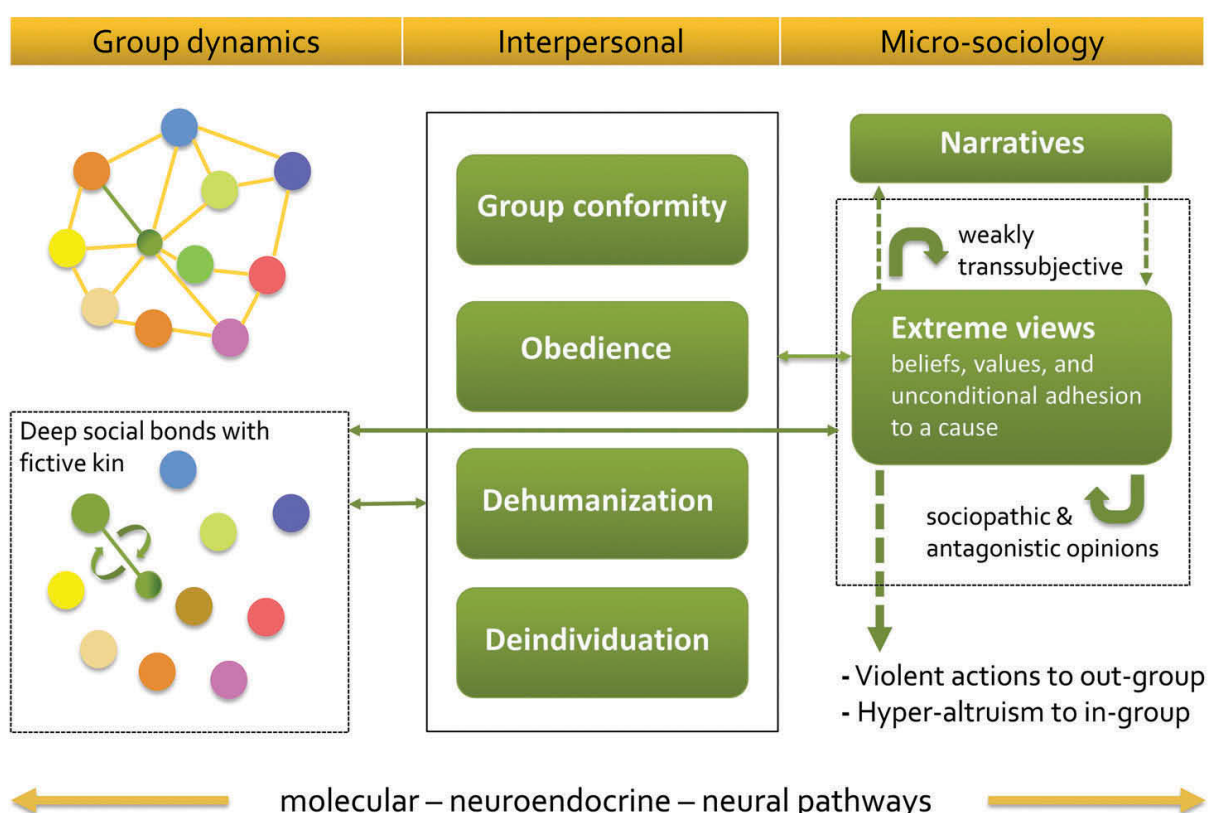


Figure 4. A visual representation of the multilevel social neuroscience (MLSN) model of radicalisation (Decety et al., 2018)

The model proposes similar social and group processes as the models discussed in the literature review (in-group identification; ideological narratives; derogation of out-group); however, it differs in that it includes an explanation as to the individual differences in propensity to extremist violence. They implicate neuroendocrine and genetic pathways which mediate the link between cognition and radical behaviour. As mentioned in dispositional theories, Decety et al. (2018) draw on neuroimaging research that shows that liberals and conservatives can be distinguished by differing neural responses. For example, liberals show more cognitive flexibility in managing conflict (Amodio et al., 2007), and conservatives show greater sensitivity to risky stimuli (Schreiber et al., 2013). Furthermore, a recent study (Baumgartner, Schiller, Rieskamp, Gianotti, & Knoch, 2014) has found that brain regions related to theory of mind are more active when in-group members transgress than when out-group members transgress, suggesting more perspective-taking is employed with in-group members as participants may have searched for reasons why an in-group member has transgressed. This also corresponded to participants in this study applying harsher punishments for outgroup members (Baumgartner et al., 2014).

Consequently, it may be that the differing neuroendocrine activation and genetic make-up of an individual may influence his/her propensity to engage in behaviours associated with radicalisation (e.g. less cognitive flexibility; heightened sensitivity to risk; less perspective-taking for out-group transgression). However, Decety et al. (2018) embed dispositional influences within a socio-psychological theoretical framework. It may be that drawing on a variety of disciplines to create a more comprehensive integrative model is a useful way of understanding the complexities of radicalisation.

The reviewed theoretical perspectives provide evidence for the complexity of interacting factors in the radicalisation process. Integrative models provide a more comprehensive insight into understanding the process of radicalisation. This is understandable as an individual who is radicalised exists in a nuanced social world in which individual, social, cultural and contextual factors interact to influence outcomes. Accordingly, the MLSN model appears to be the most robust model, incorporating many facets of the other theoretical perspectives and integrating them into a coherent whole. In terms of designing approaches to radicalisation prevention, understanding the process of radicalisation can only be the first step and the thesis would posit that it may not be possible to target all of the elements of the comprehensive integrative models (e.g. MLSN) using one approach.

This will be discussed later when considering how the thesis endeavours to explore promoting resilience to radicalisation. The next section will critique current approaches to radicalisation prevention with consideration given to the theoretical literature that precedes it.

## 2.2 Current Approaches to Preventing Radicalisation

As the thesis endeavours to promote resilience to radicalisation in young people, current approaches to radicalisation prevention will now be presented and critiqued. This analysis prioritises the UK context as the thesis's definition of radicalisation acknowledges the importance of considering the ecological context in which radicalisation takes place. Therefore, UK-based preventative approaches are deemed to have the most relevance to promoting resilience to radicalisation in the UK. However, references to relevant international research will also be included that could be adapted to include the socio-cultural and political context of the UK.

The UK's *Prevent* strategy seeks to prevent people from being drawn into terrorism (HM Government, 2015a) and the CT&S Act places a statutory duty on local authorities, schools, nurseries and universities to demonstrate how they fulfil and monitor this duty (Wolton, 2017). Therefore, different professional groups, such as teachers and social workers, are required to report individuals that they feel are 'at risk' of radicalisation. Possible warning signs or risk factors include: a change in mood, a change in language, being closed to debate or a new-found fixation on a topic (DfE, 2015). Correctly identifying those at risk is challenging as those that commit extremist violence share many 'risk factors' with a much wider population who never go on to engage in terrorist acts (Bartlett & Miller, 2012). It has been hypothesised that referring YP to *Prevent* could jeopardise important relationships if vulnerable YP are incorrectly identified as being at risk (Reed, 2016; Stanley, Guru, & Coppock, 2017). Additionally, O' Donnell (2016) posits that the statutory nature of *Prevent* can lead to the breakdown of trust and openness between teachers and students by silencing both parties who may wish to have an open dialogue about challenging ideas, arguments or beliefs in a safe classroom environment. O' Donnell (2016) believes that this silencing of dissent could lead to further marginalisation and therefore, promote rather than prevent pathways to extremism. It also can create a *double consciousness* amongst YP in schools, whereby speech is censored because YP have to reflect on how their thoughts, beliefs and attitudes may be interpreted by another who is positioned as an expert, without understanding fully what guides the interpretation (O'Donnell, 2016). This censorship can create a paranoia which may erode individual, critical thinking and open debate as the expression of extremist views may lead to suspicion and/or a *Prevent* referral (Coetzee, 1996; O'Donnell, 2016). Coetzee (1996) discusses how the paranoia induced by censorship can be stifling as "they (those

that impose censorship) want to make you see your thoughts through their eyes, and control them yourself, through their point of view” (p.34).

In this way, *Prevent* operates as ‘targeted prevention’, directing resources and intervention towards those that are perceived to be ‘at risk’ (Sklad & Park, 2017). Inadvertently, *Prevent*’s targeted approach could result in the pathologizing and labelling of the most vulnerable (O’Donnell, 2016) and individuals who are wrongly singled out may be more compelled towards extremist rhetoric due to feelings of perceived injustice or discrimination (Hickman, Thomas, Silvestri, & Nickels, 2011), as outlined in Section 2.1.5. Sklad and Park (2017) critique the targeted approach because it can reinforce negative stereotypes, as often individuals are deemed more at risk due to their ethnicity, religion or social background, and the targeted approach can further divide groups within society, leading to increased xenophobia. This appears to be particularly relevant for the Muslim community. For example, Kudnani (2009) conducted a systematic review of *Prevent* and suggests that *Prevent* is an elaborate form of Muslim surveillance. The original *Prevent* strategy (2011) drew upon the 2010 Citizenship Survey (Department for Communities and Local Government (DCLG), 2011) to inform which groups were deemed most at risk for radicalisation. However, the strategy has been critiqued for how it selected certain information from the survey that highlighted Islamic risk and appeared to neglect other information (Mythen et al, 2017). For example, 14% of Hindus and 12% of Muslims surveyed reported that violent extremism in the name of religion was ‘always or often right’ or ‘sometimes right, sometimes wrong’ and yet the Hindu community in the original *Prevent* strategy (2011; Mythen et al., 2017). Furthermore the discourse within the original strategy (2011) appeared to emphasise how Muslim perceptions of policing and discrimination may contribute to their increased risk to radicalisation, but failed to highlight the well-researched factors that may contribute to these perceptions (Mythen et al., 2017), such as: social exclusion (Craig, 2013); hyper-surveillance (Thomas, 2016); the erosion of civil rights (McGhee, 2008); and a deterioration in relations with the police (Mythen, Walklate, & Khan, 2009).

Consequently, Sklad and Park (2017) advocate for a universal approach to prevention which focuses on helping all YP to be more resilient to radicalisation. In this way, issues can be addressed at an earlier stage prior to ‘risk factors’ presenting themselves (Offord, 2000) which is deemed as advantageous to preventing radicalisation (Bhui & Jones, 2017). Additionally, (mis)labelling and stigmatization may be avoided (Offord, 2000) and



consequently, communities at risk may be less resistant to receiving interventions as all children are receiving preventative support regardless of their heritage or background (Sklad & Park, 2017). Finally, targeting adolescents at the universal and preventative level is integral as it is in line with the research on the neuroplasticity of the adolescent brain. Neuroplasticity is the brain's ability to change continuously, adapting and learning in response to sensory and environmental input and adolescence represents a critical period for this process (Kanwal, Jung, & Zhang, 2016).

*Prevent* also funds community-based projects that endeavour to promote resilience to radicalisation (Bonnell et al., 2011; Coker, 2015). For example, in 2017/2018, 181 community-based projects were funded by *Prevent* and 54% of these were delivered in schools (Home Office, 2018). However, little information regarding the projects or evaluation of their impact is currently accessible, and information is usually disseminated in the form of case studies (e.g. Bonnell et al., 2011; Coker, 2015). For example, the *Prevent* toolkit for further education and colleges (Coker, 2015) uses case studies to exemplify how learners' resilience can be developed through critical thinking skills and access to programmes like *Game On*. *Game On* is a theatre-based workshop intervention which looks at responding constructively and in solution-oriented ways to extremist ideologies that threaten communities. Interestingly, the case study selected to exemplify the above approach was conducted in a college with a majority of students from ethnic minority backgrounds, which may reflect a targeted approach which could marginalise communities.

Other governmental approaches that seek to build resilience to radicalisation are explored in a research report entitled *Teaching Approaches that Help to Build Resilience to Extremism in Young People* (Bonnell et al., 2011). This paper provides a mixture of universal and targeted approaches exemplified in the form of case studies. This is analysed in Table 7 below with reference to the theoretical literature.

Table 7 *An Analysis of the Teaching Approaches Purported to Help Build Resilience to Extremism in Young People (Bonnell et al., 2011)*

<b>Intervention/ Programme</b>	<b>Aims</b>	<b>Method/Participants/ Method of Evaluation</b>	<b>Reported Impact</b>
<b>Philosophy for Children (P4C)</b>	To teach children to think and reason critically	<b>Universal Approach</b> Single Workshop 15-20 participants per session Sixth Formers Staff & pupil interviews	Sixth Formers were reported by staff to be better able to handle differences of opinion and question critically.
<b>Not in my name</b>	To stimulate discussion about extremism, societal cohesion and stereotyping	<b>Universal Approach</b> Use of a play/drama as a stimulus Whole school, lesson-based approach All year groups in two secondary schools Staff & pupil interviews	Staff reported improved understanding of racism amongst pupils and improved critical thinking.
<b>Tools for Dialogue</b>	To guide students to reflect on the similarities and differences of sacred texts	<b>Universal Approach</b> One secondary school Only conducted with high ability groups Workshops Pupil focus groups	Participants valued being able to question and not just accept. Participants valued learning about religions from representatives from that faith.
<b>Hypothesised Theoretical Underpinnings of P4C, Not in My Name &amp; Tools for Dialogue:</b>  Based on the information available, the thesis posits that the emphasis on criticality and arguing & discussing effectively and respectfully could help tackle the following areas: <ul style="list-style-type: none"> <li>• Generalizing/stereotyping (Borum's Four Stage Model, 2004);</li> <li>• Simplistic, categorical thinking (The staircase to terrorism model- Moghaddam, 2005);</li> <li>• Wholly accepting extremist views without critique and the ideological justification of extremist violence/narratives (NYPD radicalisation process- Silber &amp; Bhat, 2007; Sageman's model of radicalisation, 2008; MLSN model, Decety et al., 2018; social psychological model of radicalisation-Webber &amp; Kruglanski, 2018).</li> </ul> It could be said that these approaches lack: <ul style="list-style-type: none"> <li>• A consideration of individual, social and psychological processes. For example, a consideration of the allure of highly entitative groups and how they can affect one's criticality or when there may be times that criticality may be less appealing or more difficult for individuals (e.g. during uncertainty or loss of control or meaning; mental health difficulties).</li> </ul>			

Furthermore, “Tools for Trialogue” endeavours to increase awareness of other religious beliefs and texts amongst YP; however, if this approach is conflated with an attempt to prevent extremism, this may foster simplistic narratives regarding the role of religion in extremism. Approaches that conflate religion with extremism may promote relative deprivation and perceived discrimination/grievance if the individual, social and psychological processes are not considered simultaneously.

<b>Rights Respecting Schools</b>	To create a school culture that places respecting human rights at its core	<b>Universal Approach</b> Whole School approach School works on accreditation over time Staff & pupil interviews	Staff reported improved relationships between staff & pupils; opened up a dialogue about rights and responsibilities.
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#### **Hypothesised Theoretical Underpinnings of Rights Respecting Schools:**

Based on the information available, it may be that the emphasis on rights and responsibilities and ensuring that people do not have these violated could help tackle the following areas:

- Generalizing/stereotyping & dehumanizing/demonizing the enemy (Borum’s four stage model, 2004; MLSN model, Decety et al., 2018);
- The ideological justification of violence/narratives as it conflicts with the principles of the programme (Sageman’s model of radicalisation, 2008; social psychological model of radicalisation; Webber & Kruglanski, 2018; MLSN model, Decety et al., 2018).

However, this approach appears to lack:

- A consideration of individual, social and psychological processes. For example, an examination of inter-group processes and how people may justify the violation of the rights of others (e.g. dehumanization of the outgroup; perceived grievances; revenge).

<b>UK Resilience Programme (UKRP)</b>	To use cognitive-behavioural approaches (CBA) to develop resilience in YP	<b>Universal Approach</b> Mixed-ability groups in Year 7 Workshop based approach Pupil interviews	Pupils reported appreciating the skills learned and how they could be helpful in managing conflict.
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#### **Hypothesised Theoretical Underpinnings of UKRP:**

Based on the information available, it appears that an emphasis on building universal resilience and using CBA to help deal with managing conflict could potentially tackle the following areas:

- Coping with difficulties that may lead to more rigid, inflexible and extremist thinking in some individuals (e.g. perceived grievance; a reduced sense of control (CCT) or meaning (MMM); uncertainty (UIT; RAM));
- The rigidity of thought and psychological inflexibility may be challenged via CBA;

- Mental health difficulties that have been associated with radicalisation in some individuals (e.g. anxiety; depression) may be supported through resilience training;
- Perceptions of grievance or discrimination as CBA may foster alternative ways of interpreting issues (Borum's four stage model, 2004; The staircase to terrorism model- Moghaddam, 2005; four factors model of radicalisation-Hafez & Mullins, 2015);
- System rejection of mainstream society as the skills developed may help an individual believe that they can make changes to society or life that he/she feels necessary (system rejection model of radicalisation, Bal & van den Bos, 2017).

However, this approach appears to lack:

- A consideration of the social processes underpinning radicalisation (e.g. inter- and intra-group processes; derogation and dehumanization of the out-group).

<b>Dissolving Boundaries</b>	To reduce inter-group conflict and prejudice through joint group working (Northern Ireland)	<b>Universal Approach</b> Whole school approach All year groups Over 200 schools Staff & pupil interviews	Pupils reported increased awareness and tolerance
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#### **Hypothesised Theoretical Underpinnings of Dissolving Boundaries:**

Based on the information available, it could be said that the emphasis on reducing inter-group conflict could potentially tackle the following areas:

- Generalizing/stereotyping & dehumanizing/demonizing the enemy (Borum's four stage model, 2004; MLSN model, Decety et al., 2018)
- Perceived discrimination/grievance through improved inter-group relations (Borum's Four Stage Model, 2004; The Staircase to Terrorism Model- Moghaddam, 2005; Four Factors Model of Radicalisation-Hafez & Mullins, 2015).
- The ideological justification of violence/narratives as it conflicts with the principles of the programme: inter-group harmony (Sageman's Model of Radicalisation, 2008; Social Psychological Model of Radicalisation; Webber & Kruglanski, 2018; MLSN model, Decety et al., 2018).

However, this approach appears to lack:

- A consideration of the psychological and individual processes that may underpin radicalisation.
- Explicit consideration of social processes with the YP involved. Dissolving boundaries sought to improve inter-group harmony through joint information and communications technology (ICT) work and so this ICT focus meant that social processes were not discussed explicitly (Austin, Abbott, Mulkeen, & Metcalfe, 2003).

<b>Rewind Anti-Racism Project</b>	To develop a value for education around racism, and to create a safe space to air views and difficulties	<b>Universal Approach</b> Four-day peer educators' course YP to go on to deliver anti-racist education to others. Secondary students 12-18 Staff & pupil interviews	Pupils reported a better understanding of racism Pupils reported that this was an engaging way of learning about racism.
<b>Hypothesised Theoretical Underpinnings of Rewind Anti-Racism Project:</b>  Based on the information available, it seems that the emphasis on reducing racism and providing spaces to air difficulties experienced could potentially tackle the following areas: <ul style="list-style-type: none"> <li>• Generalizing/stereotyping &amp; dehumanizing/demonizing the enemy (Borum's four stage model, 2004; MLSN model, Decety et al., 2018);</li> <li>• Perceived discrimination/grievance through improved inter-group relations (Borum's four stage model, 2004; the staircase to terrorism model- Moghaddam, 2005; four factors model of radicalisation-Hafez &amp; Mullins, 2015).</li> </ul> However, this approach appears to lack: <ul style="list-style-type: none"> <li>• A consideration of individual, social and psychological processes underpinning radicalisation.</li> </ul>			
<b>Digital Disruption</b>	To make YP more aware of online propaganda	<b>Targeted Approach</b> 8 Muslim teenagers Project funded by <i>Prevent</i> Series of workshops Staff & pupil interviews	Staff reported increased critical thinking in the YP.
<b>Strategy to Reach, Empower &amp; Educate Teenagers (STREET)</b>	To deconstruct propaganda & countering extremist ideology (one part of the STREET approach)	<b>Targeted Approach</b> Workshops and Applied work (30 sessions) At risk youth (e.g. gangs etc.) Islamist Extremism focus Young person Interviews	Some YP shared that they appreciated 'uncovering the truth'.  Others felt suspicious of programme facilitators and their intentions
<b>Hypothesised Theoretical Underpinnings of Digital Disruption &amp; STREET:</b>  Based on the information available, it appears that an emphasis on increasing awareness of online propaganda and its effects could potentially tackle the following areas: <ul style="list-style-type: none"> <li>• The ideological justification of violence/narratives as it conflicts with the principles of the programme (Sageman's model of radicalisation, 2008; social psychological model of radicalisation, Webber &amp; Kruglanski, 2018; MLSN model, Decety et al., 2018).</li> </ul>			

- Simplistic, categorical thinking (the staircase to terrorism model- Moghaddam, 2005)

However, this study suggests that:

- The targeted approach inherent in these approaches could foster perceived discrimination, marginalisation and relative deprivation;
- A more comprehensive consideration of individual, social and psychological processes is lacking from these approaches.

The current preventative approaches analysed in Table 7 appear to vary in how they reflect the theoretical literature and this has significance for how efficacious they may be in promoting resilience to radicalisation. The UK resilience programme's (UKRP; DfE, 2009) approach appears to convey the strongest exemplification of how the theoretical literature can be utilised to potentially help promote resilience to radicalisation. This is because of its universal approach, its promotion of critical thinking, skills to help cope with difficulty and mental health needs (e.g. perceived grievance; uncertainty; perceived loss of control or meaning; depression and anxiety) and the cognitive behavioural approaches that can help improve psychological flexibility (Gillard, Flaxman, & Hooper, 2018). UKRP also appears to be the most rigorously conducted study (UKRP). It was launched in three LAs and conducted with Year 7 students and it found significant short-term improvement on depression symptom scores and attendance; however, effects had faded by the one-year follow-up. UKRP had a larger measured impact on those entitled to free school meals (FSM) and who had worse initial symptoms of anxiety and depression (Bonnell et al., 2011). Although UKRP was not developed with exclusively preventing radicalisation in mind, resiliency programmes have been shown to be useful in radicalisation prevention. For example, Feddes, Mann and Doosje (2015) facilitated a resiliency programme which targeted 46 Muslim adolescents in the Netherlands and found significantly lower attitudes towards ideological-based violence and intention to violence after training.

Efforts to promote community cohesion and tolerance of different faiths, beliefs and backgrounds took place in Wales with *Getting on Together: A Community Cohesion Strategy for Wales* from 2009 (GOT; WG). Part of the GOT strategy in schools involved a universal pilot project in three secondary schools which endeavoured to tackle the emergence of extremist attitudes amongst Muslim youth. The GOT project aimed to achieve this by empowering YP to develop their independent critical thinking skills and facilitating a deeper understanding of the Quran and how its teachings can be perverted by extremists (WG, 2009, 2012). The project was co-developed by university professors, police, and members of different faiths (Christian, Muslim & Hindu) and this interfaith working was constructed as benefiting the Welsh community cohesion strategy (WG, 2009, 2012). The GOT project's universal approach ensures that all students are guided to develop critical thinking skills. However, like "Tools for Trialogue", the Islamic framing of the project may once again reinforce the simplistic notion that the Islamic

religion is responsible for radicalisation, rather than the key individual, social, psychological and ecological factors that may be a more powerful contribution to the radicalisation process.

Moving further afield, the *Beyond Bali* programme (Taylor, Taylor, Karnovsky, Aly, & Taylor, 2017) consists of a five-module universal approach to countering extremism in the aftermath of the Bali bombings of 2001 and 2005. This approach involved a peace education approach which culminated in the building of a peace park in the local community. The peace education approach adopted incorporates a consideration of the socio-cultural context of terrorism in Bali, a reflection on values and ethics, fostering critical thinking through ethical dilemmas, and developing skills associated with conflict management (Cook, 2008; Taylor et al., 2017). Preliminary findings in two secondary schools (a public school and a private Islamic school) with Year 8 and 9 suggest that participants felt that they developed increased critical thinking skills and increased their awareness of the complexity of terrorist attacks. However, these findings are based on an inconsistent approach to evaluation. For example, both schools were not interested in having classes observed, the Islamic school was less receptive to evaluation requests and so the evaluation reflects more of the public-school experience. Cook (2008) discusses the limited use of peace education in the United States of America (USA) and how this may be linked to the priority given to subjects (e.g. maths and science) that prepare students to compete in the global market. The response to evaluation could convey that peace education and peace generally may not be at the forefront of schools' agenda and intention to engage should be carefully considered before engaging in a counter-extremism project. Furthermore, *Beyond Bali*'s aim is to propagate peace education internationally in the form of this programme, but the researchers acknowledge that a unitary approach would be difficult as the programme cannot possibly account for the social, political and cultural sensitivities of all varying nations (Taylor et al., 2017). Nevertheless, *Beyond Bali* explicitly tackles the complexities of radicalisation and terrorism with YP in Bali and appears to draw on the individual, social and psychological literature to foster inter-group harmony, co-constructing a physical representation of peace in the community.



From an analysis of the theoretical literature, it appears that relative deprivation, perceived grievance and discrimination may influence radicalisation and this has been associated with targeted approaches to radicalisation prevention (Sklad & Park, 2017). Furthermore, the preliminary success of universal approaches like UKRP and Beyond Bali appears to convey a rationale for considering a universal approach to promoting resilience to radicalisation. Importantly, Sklad & Park (2017) emphasise that effective universal approaches are those that may provide benefits to all who receive them whilst also promoting resilience to radicalisation (e.g. UKRP; P4C). By adopting a universal approach, the further marginalisation of at-risk groups is avoided, and all children have access to psychologically informed interventions that may prove valuable (e.g. promoting resilience /critical thinking skills generally). It may also be beneficial to exclude programme material that may inadvertently promote simplistic views of the radicalisation process (e.g. grounding the universal approach in an analysis of religion). The next section will propose adopting the lens of RAM theory to facilitate this universal approach to promoting resilience to radicalisation.

### **3. A Rationale for Adopting the Lens of Reactive Approach Motivation (RAM) Theory to Promote Resilience to Radicalisation**

RAM theory attributes the move towards ideological extremes as a way of alleviating personal uncertainty that occurs in response to motivational conflict (McGregor, Nash, Mann, et al., 2010). There is a robust evidence base to support the role of RAM theory in promoting ideological extremes (McGregor, Nash, Mann, et al., 2010; McGregor, Nash, & Inzlicht, 2009; McGregor, Nash, & Prentice, 2012; McGregor et al., 2013). Personal uncertainty is implicated as potentially having a core influence in the process of radicalisation. However, it is not just RAM theory that constructs a role for uncertainty. UIT (Hogg, 2007), the MMM (Heine et al., 2006), CCT (Kay & Eibach, 2013), and many of the integrative models (Sageman, 2008; Webber & Kruglanski, 2018; Wiktorowicz, 2005) implicate a desire to reduce uncertainty or increase certainty in response to self-doubt, personal uncertainty, perceived injustice and personal crises. Thus, it would seem that a way of promoting resilience to radicalisation at the universal level could be carried out by helping YP deal better with uncertainty.

Some of the integrative models of radicalisation draw on case study or ethnographic analyses of people who have been radicalised or have been involved in terrorism (e.g. Model B: Wiktorowicz's theory of joining extremist groups, 2005; Model D: NYPD's radicalisation process, Silber & Bhatt, 2007), observing patterns, themes and commonalities amongst cases. Ethnography is an art of describing a group or culture whereas a case study is an in-depth analysis of a particular instance, event, individual, or a group (Hammersley, 2006). These types of research can exist separately or be conducted in conjunction with each other. Ethnographic case study analyses can provide a rich qualitative picture of a group or culture and how a certain issue affects them; however, like all qualitative research, the analyses cannot be disconnected from the socio-political and cultural context within which it is embedded (Hammersley, 2006). This is argued to be in contrast to the quantitative research related to RAM theory in which causal links between personal uncertainty and ideological extremes can be asserted due to the rigorous, experimental design employed and less reliance placed on subjective interpretations (McGregor et al., 2013). This may lend more credence to the view that personal uncertainty is influential within the process of radicalisation and therefore making RAM worthy of exploration in a preliminary, universal preventative intervention.

Other integrative models review the empirical literature and endeavour to encapsulate the entire process of radicalisation (e.g, Model F: Four factor model, Hafez & Mullins, 2015; Model G: Social psychological model of radicalisation). Whilst these models can demonstrate great breadth in describing radicalisation processes for some, they can also lack the depth of understanding gained from some of the psychological and social models that focus on a specific influential mechanism within that process (e.g. RAM, CCT, UIT). This does not negate the efficacy of the more comprehensive integrative models, such as the MLSN model (Decety et al., 2018) in which there are numerous social and psychological facets that could be targeted. However, Sewell and Hulusi (2016) have recommended adopting the lens of RAM theory in preventative radicalisation work amongst EPs and it was recognised that a further exploration of RAM and its potential usefulness in a universal preventative intervention was warranted to justify this recommendation. In terms of intervention development, RAM theory provides a specific way to potentially approach building resilience to radicalisation through helping YP manage motivational conflict and the personal uncertainty it can create.

Tackling tolerance of personal uncertainty may have benefits beyond uncertainty itself. For example, anxiety is linked both theoretically and conceptually to the intolerance of uncertainty (IU; Carleton, Norton, & Asmundson, 2007). Anxiety can be defined as a response to a potential or perceived threat that may or may not occur and therefore, how tolerant a person is of the uncertainty of these threats occurring will influence the frequency and intensity of the worry he/she experiences (Laugesen, Dugas, & Bukowski, 2003) and therefore his/her anxiety (Greco & Roger, 2003). Consequently, IU has been found to be an individual difference that explains the variation in excessive worry, state anxiety and has strong positive associations with Generalized Anxiety Disorder (GAD) and other anxiety pathologies (Dugas, Gagnon, Ladouceur, & Freeston, 1998; Carleton et al., 2007). Although this study is primarily aimed at promoting tolerance of personal uncertainty in YP, a possible by-product is helping them to build their resilience by developing skills to manage anxiety and/or other difficulties.

Additionally, within EP practice, there are already a variety of therapeutic approaches and models of applied psychology that can address helping YP to deal better with uncertainty and motivational conflict (Sewell & Hulusi, 2016), potentially making it easier to weave this approach into EPs' work with schools. For example, mindfulness is

the practice of attending to the present moment and observing thoughts, feelings and sensations without judgement (Kabat-Zinn, 2013) and it has been successfully implemented as a therapeutic approach by EPs (Thomas & Atkinson, 2017). From a RAM perspective, mindfulness could be useful in helping YP to observe their personal uncertainty and not get ‘caught up’ in the emotional responses that the uncertainty may elicit (Sewell & Hulusi, 2016). Consequently, mindfulness practice could create less of a need to lean on ideological extremes to assuage uncertainty (Sewell & Hulusi, 2016). Similarly, cognitive-behavioural approaches (CBA) seek to help YP see the connections between thoughts, feelings and behaviour, and unearth potential cognitive biases or distortions in thinking (Stallard, 2010). CBA has been found to be useful in EP practice (Weeks, Hill, & Owen, 2017) and, from a RAM perspective, could help YP develop new relationships with uncertainty that would lessen the need for approach-motivated states, which could be found in extremism and, from a RAM perspective, could help YP develop new relationships with uncertainty that would lessen the need for approach-motivated states, which could be found in extremism.

Therefore, the thesis will adopt the lens of RAM theory to develop a universal programme to strengthen tolerance of personal uncertainty as a preliminary investigation into ways to promote resilience to radicalisation in YP. Gaps that exist in the existing research literature will now be discussed to provide a basis for the current study.

#### **4. Gaps in the Existing Research Literature**

The experimental research on RAM has only been conducted with adult populations. This may be because YP engaging in experimental manipulations of RAM could mean exposing vulnerabilities to ideological extremes in YP, which has ethical implications regarding how to contend with these vulnerabilities post-research. Thus, the relevance of RAM theory in younger populations has not been explored. However, the mechanisms of the BIS and approach motivation generally have been documented in YP (Llewellyn & Rudolph, 2014). For example, Coplan et al. (2013) found that social approach motivation (the drive to obtain social approval and achieve status in the peer group) was associated with anti-social and aggressive behaviour in YP. Therefore, using RAM as a perspective within the thesis could have relevance for promoting resilience to radicalisation in YP. Furthermore, there does not appear to be a universal programme to help YP deal better with uncertainty in the hope that it can promote resilience to radicalisation. The following part of the literature review will propose a rationale for the role of the EP in achieving this aim.

## **5. A Rationale for the Role of the EP in Promoting Resilience to Radicalisation**

The role of the EP tends to operate across the following domains: assessment, intervention, training, consultation, research, and policy development (Scottish Executive Education Department (SEED), 2002). Across these domains, early preventative work is deemed highly important (Health and Care Professions Council (HCPC), 2015). However, in a large-scale national study, Vostanis et al. (2013) found that schools tend to invest little time in early preventative work, with the bulk of time dedicated to reactive intervention that seeks to alleviate difficulties once they are already present. They also found that reactive interventions selected show little consideration for evidence-based practice (Vostanis et al., 2013). It is argued that the professional training and skills of EPs, and typical models of service delivery, could be advantageous in promoting resilience to radicalisation at the preventative, universal level as service delivery ideally prioritises early intervention, evidence-based practice and systemic working (Greig, MacKay, Roffey, & Williams, 2016; Sewell & Hulusi, 2017). Furthermore, shifts towards a traded model of service delivery in educational psychology services (EPSs) across the UK has been found to support the provision of more preventative, psychologically informed services to schools (Lee & Woods, 2017). As universal approaches to radicalisation prevention often involve the development of key resilience skills in young people (e.g. P4C; UKRP; DfE, 2011), these approaches may also promote positive mental health, which is a key governmental priority. Both the English Green Paper *Transforming Children and Young People's Mental Health Provision* (Department of Health (DoH) & DfE, 2017) and the Welsh well-being strategy *Together for Mental Health* (WG, 2018) emphasise the importance of early preventative work to promote improved mental health amongst YP. Thus, enlisting the involvement of EPs in developing a universal approach to promoting resilience to radicalisation may be a useful way of tackling both radicalisation and the mental health and well-being needs of all.

## 6. The Current Study

The thesis will embark on a two-part study to explore strengthening tolerance of personal uncertainty in YP as a preliminary investigation into potential universal, preventative ways to promote resilience to radicalisation in YP. The first study will focus on developing a universal, preventative programme to strengthen YP's tolerance of personal uncertainty with the aim to potentially promote resilience to radicalisation. This will be co-constructed with EPs using the perspective of RAM as a theoretical base. The second study will involve delivering and evaluating the programme at a universal level in schools.

The thesis hypothesises that those who have difficulties tolerating uncertainty may be more inclined to engage in RAM to reduce symptoms of personal uncertainty and/or anxiety and thus, a universal programme targeting tolerance of personal uncertainty could reduce vulnerability to radicalisation. The titles and research questions of the studies are outlined below in Table 9 and 10:

Table 8 *Titles of Study 1 & 2*

<b>Study 1</b>	An educational psychologist exploration of Reactive Approach Motivation (RAM) Theory in understanding the process of radicalisation, and the development of a universal preventative programme designed to strengthen young people's tolerance of personal uncertainty.
<b>Study 2</b>	The implementation and evaluation of a universal programme to strengthen young people's tolerance of personal uncertainty.

Table 9 *Research Questions*

<b>Study 1</b>
<b>RQ1</b> What are EPs' perceptions regarding the relevance of RAM theory in the process of radicalisation?
<b>RQ2</b> In developing a universal programme to strengthen YP's tolerance of personal uncertainty, what would EPs think would be most beneficial to include? What would be the 'core components'?
<b>RQ3</b> How do EPs feel a universal programme to strengthen YP's tolerance of personal uncertainty should be delivered?

<b>RQ4</b>
What are EPs views regarding the programme that has been developed from the information gleaned from the working group?
<b>Study 2</b>
<b>RQ5</b>
Does a universal programme designed to strengthen YP's tolerance of personal uncertainty lower participants' score on the Intolerance of Uncertainty Scale for Children (IUSC; Comer et al., 2009)?
<b>RQ6</b>
What do those involved with the programme perceive as the benefits of the programme?
<b>RQ7</b>
What do those involved with the programme perceive as the challenges associated with the programme?
<b>RQ8</b>
How is the YP's confidence in tolerating uncertainty affected by the programme?

## 7. References



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## **Part Two: Empirical Paper**

**8782 Words**



## 1. Introduction

Radicalisation is defined as ‘the process by which an individual or group comes to adopt increasingly extreme political, social, or religious ideals and aspirations that either reject or undermine the status quo or reject and/or undermine contemporary ideas and expressions of freedom of choice’ (Scarcella, Page, & Furtado, 2016, p. 6). In response to increasing terrorist attacks in the United Kingdom (UK), The *Counter-Terrorism and Security Act* (CT&S) 2015 was revised in 2015 and placed a specific statutory duty, called *The Prevent Duty* (Her Majesty’s (HM) Government, 2015), on all local authorities (LAs), schools, and registered early years and later years childcare providers. The duty requires that due consideration be given to preventing individuals from being drawn into terrorism. *Prevent* is a service set up to prevent radicalisation in the UK and 56% of referrals to *Prevent* were under the age of 20 in 2015/16 (Home Office, 2017). Thus, radicalisation appears to be a phenomenon associated with the youth of today.

There are varying theoretical perspectives that endeavour to understand the radicalisation process. Psychopathological theories associate radicalisation with various mental health difficulties (e.g. depression, anxiety; Bhui, Everitt, & Jones, 2014) and personality disorders (e.g. delusional disorder, schizophrenia; Corner, Gill, Schouten, & Farnham, 2018). However, the research is inconsistent and psychopathology appears to play more of a role in lone-wolf terrorists than group-affiliated terrorists (Corner & Gill, 2015).

Dispositional theories conflate radicalisation with internal mindsets or dispositions. For example, these theories analyse the differences in liberal and conservative mindsets and how the tendency towards rigid, inflexible and categorical thinking typical in conservatives may make conservatives more vulnerable to radicalisation (De Zavala, Cislak, & Wesolowska, 2010). This is further supported in the research of De Zavala et al. (2010) who found that a need for cognitive closure (i.e. order, predictability, unambiguous categorical thinking) was associated with greater hostility towards Arab and Muslim groups only amongst conservatives when compared to liberals.

Social theories tend to focus on the role of identity, intra-group and inter-group dynamics in promoting radicalisation. For example, uncertainty identity theory (UIT) has found that uncertainty about self-identity prompts individuals to form groups or become members of desirable groups and that groups that are highly entitative can be more alluring during uncertain times (Hogg, Meehan, & Farquharson, 2010). Highly entitative groups are

marked by group prototypes or norms that are clear, unambiguous, highly prescriptive and focused and so, they provide greater reductions in self-uncertainty than low entitative groups (Hogg et al., 2010). This has implications for radicalisation as extremist groups tend to be highly entitative in nature (Hogg et al., 2010).

Psychological theories propose mechanisms that may make individuals vulnerable to radicalisation. For example, the meaning maintenance model (MMM) (Heine, Proulx, & Vohs, 2006) proposes that a sense of meaning is crucial in one's life. Threats to a sense of meaning have been associated with a tendency towards groups that are highly entitative (Van Tongeren & Green, 2010). Compensatory control theory (CCT) posits that a reduced sense of control can propel individuals into creating alternative senses of control, which could make extremism more alluring (Kay & Eibach, 2013). Reactive approach motivation (RAM) theory implicates the personal uncertainty that derives from motivational conflict in leading people to more religious, behavioural and idealistic extremes (McGregor, Prentice, & Nash, 2013). However, it appears that a consideration of the interplay between differing theoretical perspectives is useful in understanding radicalisation and has brought about integrative theories of radicalisation. For example, the multilevel social neuroscience (MLSN) model of radicalisation (Decety, Pape, & Workman, 2018) integrates the social and psychological perspectives with individual differences in propensity to extremist violence, explained via neuroendocrine and genetic pathways.

## **2. The Rationale for a Universal Approach to Promoting Resilience to Radicalisation**

This study endeavours to explore strengthening tolerance of personal uncertainty in YP as a preliminary investigation into potential universal, preventative ways to promote resilience to radicalisation in YP. A universal approach seeks to provide resilience-building intervention to all young people (YP), rather than targeting those that society or governments deem ‘at-risk’ (Offord, 2000; Sklad & Park, 2017), which has been found to contribute towards a sense of perceived injustice or discrimination noted as a contributing factor in radicalisation processes (King & Taylor, 2011; Offord, 2000; Sklad & Park, 2017). In this way, issues can be addressed at an earlier stage (Offord, 2000) prior to ‘risk factors’ presenting themselves (e.g. change in mood, change in language, being closed to debate or a new-found fixation on a topic; Department for Education (DfE), 2015). Additionally, (mis)labelling and stigmatization may be avoided (Offord, 2000) and consequently, communities at risk may be less resistant to receiving interventions as all children are receiving preventative support regardless of their heritage or background (Sklad & Park, 2017). A universal approach means that all YP would be able to access resilience-building intervention and this universal access could assist in promoting better mental health and well-being amongst all YP, which is a key UK governmental priority (DoH & DfE, 2017). Finally, targeting adolescents for this universal, preventative approach is integral as it is in line with the research on the neuroplasticity of the adolescent brain. Neuroplasticity is the brain’s ability to change continuously, adapting and learning in response to sensory and environmental input and adolescence represents a critical period for neuroplasticity (Kanwal, Jung, & Zhang, 2016). This is discussed further in Section 7.8.

### 3. Current Approaches to Preventing Radicalisation

Radicalisation prevention in the UK has tended towards targeting intervention at those deemed ‘at-risk’ via *Prevent*, and *Channel*, a multi-agency panel that assesses vulnerability to radicalisation and develops targeted intervention (O’Donnell, 2016; Sklad & Park, 2017). Consequently, there are fewer researched examples of universal approaches to radicalisation prevention, other than case studies. Philosophy for Children (P4C), Not in my name and Tools for Trialogue are examples of case studies that adopted a universal approach to promote critical thinking skills and received positive evaluations in qualitative interviews with participants (Bonnell et al., 2011). Similarly, the DfE developed the UK Resiliency Project (UKRP) which was evaluated more rigorously than the above programmes and was found to have significant effects on anxiety and depression, but effects were not maintained at one-year follow up (Bonnell et al., 2011). UKRP’s focus on resilience could have relevance to radicalisation prevention as resiliency training targeting ‘at-risk’ youth has been found to significantly lower attitudes towards ideological-based violence and intention to violence after training (Feddes, Mann, & Doosje, 2015). Outside of the UK, *Beyond Bali* is a universal programme designed to counter-extremism in Bali (Taylor, Taylor, Karnovsky, Aly, & Taylor, 2017). The peace education approach adopted by the programme incorporates a consideration of the socio-cultural context of terrorism in Bali, a reflection on values and ethics, fostering critical thinking through ethical dilemmas, and developing skills associated with conflict management (Cook, 2008; Taylor et al., 2017). *Beyond Bali* explicitly tackles the complexities of radicalisation and terrorism with YP in Bali and appears to draw on the individual, social and psychological literature to foster inter-group harmony, co-constructing a physical representation of peace in the community.

#### **4. Reactive Approach Motivation (RAM) Theory and its Potential Relationship with Radicalisation**

RAM theory attributes the move towards ideological extremes as a way of alleviating personal uncertainty that occurs in response to motivational conflict (McGregor, Nash, Mann, & Phills, 2010; McGregor et al., 2013). There is a robust evidence base to support the role of RAM theory in promoting ideological extremes (McGregor, Nash, Mann, et al., 2010; McGregor, Nash, & Prentice, 2010; McGregor, Nash, & Inzlicht, 2009; McGregor et al., 2013). For example, research has found that priming personal uncertainty (for example, asking participants to reflect on a personal dilemma) leads to an increased zealotry for one's own religious beliefs, an increase in derogatory views of others' religious beliefs and significantly increases willingness to support religious warfare compared to controls (McGregor, Haji, Nash, & Teper, 2008). Similarly, McGregor et al. (2013) conducted five studies consolidating previous RAM research and found that uncertainty-related threats only stimulated RAM when they aroused personal uncertainty about active goals. Therefore, difficulties managing personal uncertainty related to active goals or aspirations are implicated as potentially contributing to the radicalisation process (Hogg, Kruglanski, & van den Bos, 2013; McGregor et al., 2013). However, it is not just RAM theory that constructs a role for uncertainty. UIT (Hogg & Adelman, 2013), the MMM (Heine et al., 2006), CCT (Kay & Eibach, 2013) and many of the integrative models of radicalisation (Sageman, 2008; Webber & Kruglanski, 2018) implicate a desire to reduce uncertainty or increase certainty in response to self-doubt, personal uncertainty, perceived injustice and personal crises.

Some of the integrative models of radicalisation draw on case study or ethnographic analyses of people who have been radicalised or have been involved in terrorism (e.g. Wiktorowicz, 2005; Silber & Bhatt, 2007), observing patterns, themes and commonalities amongst cases. Ethnographic case study analyses can provide a rich qualitative picture of a group or culture and how a certain issue affects them; however, like all qualitative research, the analyses cannot be disconnected from the socio-political and cultural context within which it is embedded (Hammersley, 2006). This is argued to be in contrast to the quantitative research related to RAM theory in which causal links between personal uncertainty and ideological extremes can be asserted due to the rigorous, experimental design employed (McGregor et al., 2013). This may lend more credence to the view that personal uncertainty is influential within the process of radicalisation and therefore

worthy of exploration in a preliminary, universal preventative intervention. Thus, it would seem that a way of promoting resilience to radicalisation at the universal, preventative level could be carried out by helping YP deal better with personal uncertainty. This does not negate the efficacy of the more comprehensive integrative models, such as the MLSN model (Decety et al., 2018) in which there are numerous facets that could be targeted. However, Sewell and Hulusi (2016) have recommended adopting the lens of RAM theory in preventative radicalisation work amongst EPs and it was recognised that a further exploration of RAM and its potential usefulness in a universal preventative intervention was warranted to justify this recommendation. In terms of intervention development, RAM theory provides a specific way to potentially approach building resilience to radicalisation through helping YP manage motivational conflict and the personal uncertainty it can create.

Importantly, the age group the study wishes to target (i.e. adolescence) has been selected carefully in reference to personal uncertainty. Adolescence represents a critical window in which neuroplasticity occurs (Blakemore & Frith, 2005). Neuroplasticity is the brain's ability to change continuously, adapting and learning in response to sensory and environmental input (Kanwal, Jung, & Zhang, 2016). During adolescence, neural connections within the frontal lobe of the human brain and its connections with the amygdala are rapidly modified as they mature, responding to and adapting the adolescent to his/her social environment (Kanwal et al., 2016). The frontal lobe is implicated in executive functioning (i.e. planning, focusing and shifting attention, prioritizing, impulse control and regulation) and the amygdala is associated with the processing of emotions (Blakemore & Frith, 2005; Kanwal et al., 2016). Universal, preventative approaches endeavour to intervene before problems occur (Offord, 2000) and therefore, intervening earlier is beneficial. Furthermore, in adult populations, intolerance of uncertainty (IU) has been found to be relatively stable over time as patterns of beliefs, attitudes and behaviours have had time to become more deeply entrenched (Cornacchio et al., 2018). Adolescence is a time in which many of the cognitive processes associated with processing and managing uncertainty and decision-making are still developing and maturing and are therefore more open to change (Kanwal et al., 2016; Osmanagaoglu, Creswell, & Dodd, 2018). Moreover, adolescence is a time in which identity confusion and formation is prominent (Erikson, 1963; Sneed, Whitbourne, & Culang, 2006) and as a result, this

period can be associated with personal uncertainty. Therefore, adolescence may be an optimal time to endeavour to strengthen tolerance of personal uncertainty.

Tackling tolerance of personal uncertainty may also have benefits beyond uncertainty itself. For example, anxiety is linked both theoretically and conceptually to the intolerance of uncertainty generally (IU; Carleton, Norton, & Asmundson, 2007). Anxiety can be defined as a response to a potential or perceived threat that may or may not occur and therefore, how tolerant a person is of uncertainty of these threats will influence the frequency and intensity of the worry he/she experiences (Laugesen, Dugas, & Bukowski, 2003) and therefore his/her anxiety (Greco & Roger, 2003). Consequently, IU has been found to be an individual difference that explains the variation in excessive worry, state anxiety and has strong positive associations with Generalized Anxiety Disorder (GAD) and other anxiety pathologies (Dugas, Gagnon, Ladouceur, & Freeston, 1998; Carleton et al., 2007). Although this study is primarily aimed at promoting tolerance of personal uncertainty in YP, a possible by-product is helping them to build their resilience by developing skills to manage anxiety and/or other difficulties.

Within educational psychology practice, there are already a variety of therapeutic approaches and models of applied psychology that can address helping YP to deal better with uncertainty and motivational conflict (Sewell & Hulusi, 2016). For example, cognitive-behavioural approaches (CBA) seek to help YP see the connections between thoughts, feelings and behaviour, and unearth potential cognitive biases or distortions in thinking (Stallard, 2010). CBA has been found to be useful in educational psychology practice (Weeks, Hill, & Owen, 2017) and, from a RAM perspective, could help YP develop new relationships with uncertainty that would lessen the need for approach-motivated states, which could be found in extremism. Thus, the adoption of RAM theory as a theoretical framework to approach this study was viewed as advantageous.

## **5. Gaps in the Existing Research and Rationale for the Current Study**

The experimental research on RAM has only been conducted with adult populations. This may be because YP engaging in experimental manipulations of RAM could mean exposing vulnerabilities to ideological extremes in YP, which has ethical implications post-research. Thus, the relevance of RAM theory in younger populations has not been explored. Currently, there does not appear to be a universal programme to help YP deal better with personal uncertainty in the hope that it can promote resilience to radicalisation. This research endeavours to explore this gap in the literature.

The current study aims to strengthen tolerance of personal uncertainty in YP as a preliminary investigation into potential universal, preventative ways to promote resilience to radicalisation in YP. Educational psychologists (EPs) work with YP, and their skills, expertise and psychological understanding may be beneficial in this endeavour (Sewell & Hulusi, 2016). Consequently, the study seeks to co-construct pathways to promoting radicalisation resilience with EPs, and the study has selected reactive approach motivation (RAM) theory (McGregor et al., 2013) as a theoretical perspective to inform this approach.



## 6. The Current Study

In order to contribute to the research literature and address the gaps in the literature, the current study aims are divided into two parts and will explore the following research questions (RQs):

Table 9 *Research Questions*

Study 1
<b>RQ1</b> What are EPs' perceptions regarding the relevance of RAM theory in the process of radicalisation?
<b>RQ2</b> In developing a universal programme to strengthen YP's tolerance of personal uncertainty, what would EPs think would be most beneficial to include? What would be the 'core components'?
<b>RQ3</b> How do EPs feel a universal programme to strengthen YP's tolerance of personal uncertainty should be delivered?
<b>RQ4</b> What are EPs views regarding the programme that has been developed from the information gleaned from the working group?
Study 2
<b>RQ5</b> Does a universal programme designed to strengthen YP's tolerance of personal uncertainty lower participants' score on the Intolerance of Uncertainty Scale for Children (IUSC; Comer et al., 2009)?
<b>RQ6</b> What do those involved with the programme perceive as the benefits of the programme?
<b>RQ7</b> What do those involved with the programme perceive as the challenges associated with the programme?
<b>RQ8</b>

How is the YP's confidence in tolerating uncertainty affected by the programme?

## **7. Methodology**

### **7.1 The Epistemology of the Research**

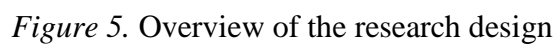
Epistemologically, the thesis adopts a *pragmatist* stance which thereby holds that something is true if it has practical value (Hall, 2013; Morgan, 2014). Thus, working with EPs to create a universal preventative programme to strengthen tolerance to personal uncertainty is worthwhile only in so much as it can provide real, observable benefits for the YP that engage with the programme. Dewey, an advocate for pragmatism, developed a model of inquiry that has guided the research design (1998 cited in Morgan, 2014; See Appendix D). Importantly, this model defines a problem, seeks understanding and drives towards a solution, whilst understanding the bi-directional influence action and beliefs have on each other. Pragmatism will be further discussed and critiqued in Part Three of the thesis.

### **7.2 The Researcher's Position**

Pragmatism is less interested in the nature of reality (ontology), acknowledging that reality is constantly changing, subject to debate and interpretation (Morgan, 2014). Accordingly, pragmatists spend less time reflecting on their ontological position, instead focusing their efforts on what works in terms of their research questions. However, this study posits that the researcher's ontological position can still impact on where these research questions derive and how findings are interpreted. Ontologically, the thesis adopts a 'critical realist' stance, which assumes that radicalisation is a knowable construct that can be understood through knowable psychological processes, such as RAM (Willig, 2013). However, this stance also acknowledges that there can be varying interpretations of the relevance of RAM and a programme developed using RAM as a theoretical base can be interpreted in different ways.

### **7.3 Overview of the Research Design**

The research study was divided into two parts due to the sensitive and emotive nature of radicalisation. This allowed for differing foci for each study. Study 1 explored the development of a universal programme to promote resilience to radicalisation through strengthening YP's tolerance of personal uncertainty. Study 2 involved the implementation and evaluation of a universal programme to strengthen tolerance of personal uncertainty. Ethical issues related to this are discussed later in Part 2, Section 8. As this was a preliminary pilot study with a quasi-experimental design, there was no control group used for comparison and no random assignment of participants. This study served as an opportunity to consider the potential efficacy of targeting personal uncertainty to promote resilience to radicalisation in the future. Consequently, it was decided that the programme would be delivered by the researcher at the group level rather than endeavouring to initiate change at the systemic level (e.g. training staff; working indirectly with YP via staff and school culture), which could result in the research findings being influenced by other extraneous variables (e.g. school readiness to change; school culture, ethos and norms; staff experience and investment). Exclusive systemic working could have then threatened the ecological and external validity of the study and provided less insight into the usefulness of promoting tolerance of personal uncertainty specifically. The ecological validity refers to the extent to which the study's findings can be applied to real-life settings (i.e. schools generally), and the external validity refers to the extent to which the study's findings can be applied to another context (Howell, 2013).



#### 7.4 Procedure: Study 1



Figure 6. Procedure Employed in Study 1

The American Psychological Association (APA; 2006) highlights the importance of the inclusion of professional expertise in how evidence-based practice (EBP) is defined. Fox (2011) posits that EPs draw on valuable practice-based evidence (PBE) in their role, which can be defined as evidence about what helps and how, developed over time through their engagement with individuals, groups and systems. Dutton (1995) proposes a three-part model that may be helpful in understanding how the process of PBE may develop:

- *pattern recognition* (i.e. observing and reflecting on patterns between the stories they encounter and their previous responses);
- *knowing-in-action* (i.e. responding to recurring themes/issues/patterns in ways that have previously proved effective);
- *naming and framing* (i.e. drawing on assumptions and useful theories to clarify the problem to arrive at a solution).

It is acknowledged that the EP participants may not have had a robust understanding of the theoretical and research evidence base regarding radicalisation and uncertainty; however, the purpose of Study 1 was to draw on the EPs' professional expertise and/or PBE to apply research and theory to practice most effectively. For example, within educational psychology practice, there are already a variety of therapeutic approaches and models of applied psychology that can address helping YP to deal better with uncertainty and motivational conflict (Sewell & Hulusi, 2016). It was hypothesised that EPs potential experience of delivering these approaches or tackling similar issues could be useful for programme development and implementation. However, challenges to drawing on EPs' PBE include (Fox, 2011):

- *the validity effect*, when information presented repetitively in practice appears more valid over time due to familiarity, regardless of the validity of the information;
- *positive confirmation bias*, when an EP has a theory about an issue and seeks evidence to confirm the theory and discounts contradictory information;
- *irrational belief persistence*, when an EP has strong, passionate beliefs on a subject that become stronger when contradictory evidence is presented as he/she has to cognitively work harder to defend the belief.

In bringing together a group of EPs, these cognitive biases could have led to information being presented that is not helpful or valid. Similarly, it could have created difficult group dynamics, especially if there were strongly held beliefs that sway the thinking of the group in ways that prevent all voices being heard. However, it was felt that the PBE of the EPs was invaluable to effective programme development and implementation, considering the limited EP experience of the researcher. Moreover, potential difficulties could be offset by the structure of the EP working group and the Study 1 procedure as outlined below, which endeavoured to bring together PBE and the research evidence.

Consequently, the EP working group was facilitated by the following techniques: The World café method (WCM) (Brown & Isaacs, 2005) to explore RQ1 and nominal group technique to explore RQ2 (NGT; Delbecq & Van de Ven, 1971) as outlined in Figure 7 and Figure 8 below.

The WCM facilitates active dialogue between a large group of people by helping the group to build relationships, share perspectives and make connections between ideas and perspectives, all in an informal and relaxed environment (Tan & Brown, 2005). In this way, collaborative learning is fostered which could prove efficacious in developing an effective programme to strengthen tolerance to personal uncertainty that draws on the expertise of all. The desired outcome from the world café was to have collated views regarding RAM theory and its relevance to radicalisation, and to have collaboratively thought of ways that YP's tolerance of personal uncertainty can be strengthened. The solution-focused approach of the WCM has been criticised for its potential to silence dissenting voices (Aldred, 2011) as stimulus questions are framed positively and constructively. However, RQ1 aimed to combat this difficulty by stimulating a more open discussion regarding the relevance of RAM theory (See Appendix H for a more in-depth description of WCM in this study).

*Figure 7. Overview of the World Café Method employed*



NGT is a well-researched and effective group decision making process where solutions to a problem identified are shared in a systematic way ensuring that all views are validated and commonalities between perspectives are highlighted (Boddy, 2012). Voting on the value of all solutions is then facilitated through the NGT process and each individual's vote has the same value (Boddy, 2012). NGT has been found to be more effective at reaching outcomes than brainstorming alone or having an open discussion as ideas are not stifled by social comparison, desirability or the effect of strong personalities in the group (Baruah & Paulus, 2008; McMillan et al., 2014; Paulus, Putman, Dugosh, Dzindolet, & Coskun, 2002). The desired outcome from the NGT portion of the session was to have identified potential core components for the universal preventative programme and stimulate thinking to inform a discussion on the ideal mode of programme delivery. The components proposed and the voting were then considered in reference to the research literature on promoting tolerance to personal uncertainty. Only components voted on that were substantiated by the research literature or evidence base were included in the draft programme plan, which was then evaluated by the EPs in Session 2 to ensure programme cohesion. (See Appendix I for a more in-depth description of NGT in this study and the inclusion criteria and exclusion criteria that guided component selection).

*Figure 8. Overview of the Nominal Group Technique employed*

### 7.5 Procedure: Study 2 (Pilot 1)

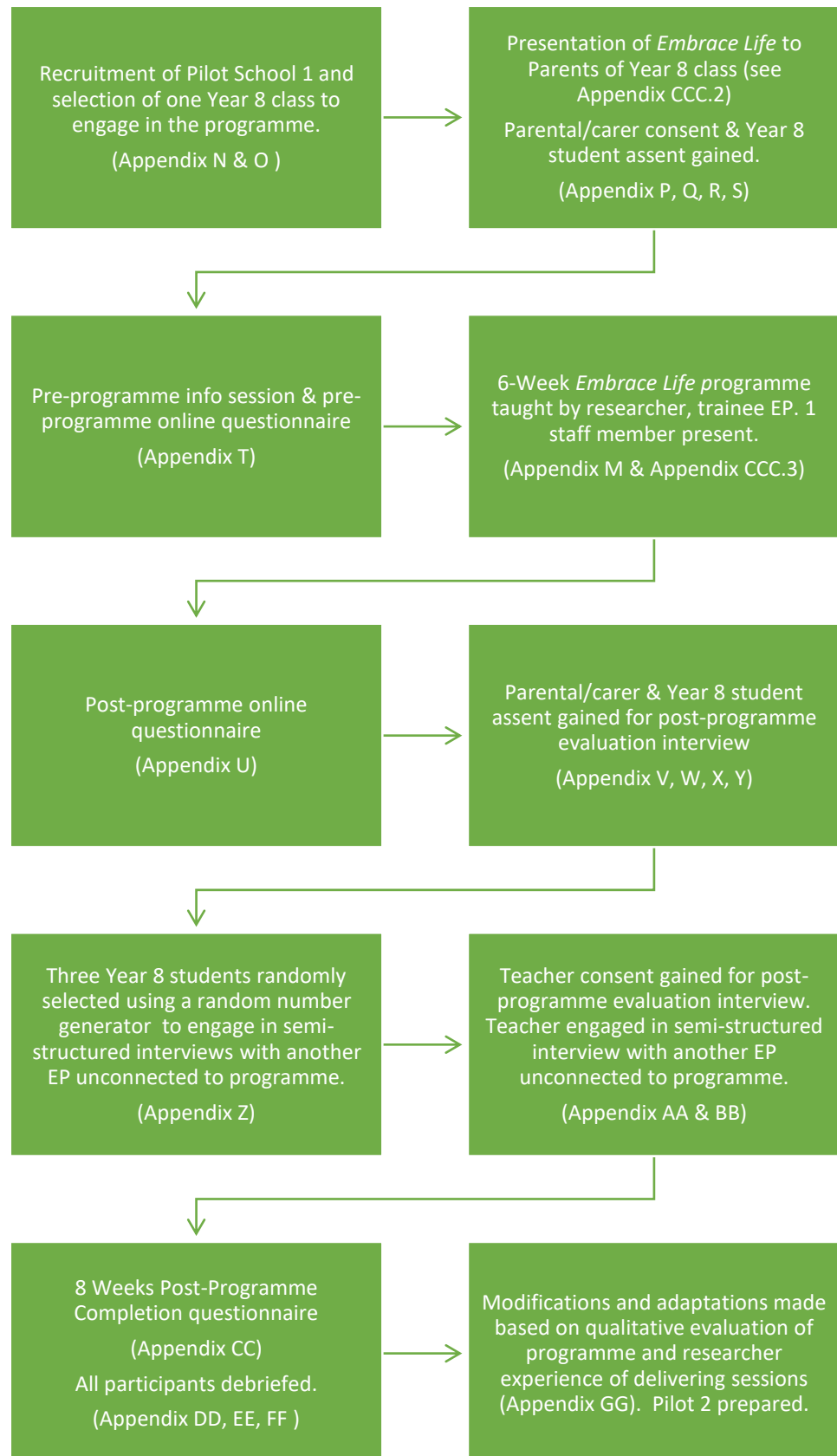


Figure 9. Procedure Study 2 (Pilot 1)

## 7.6 Procedure: Study 2 (Pilot 2)

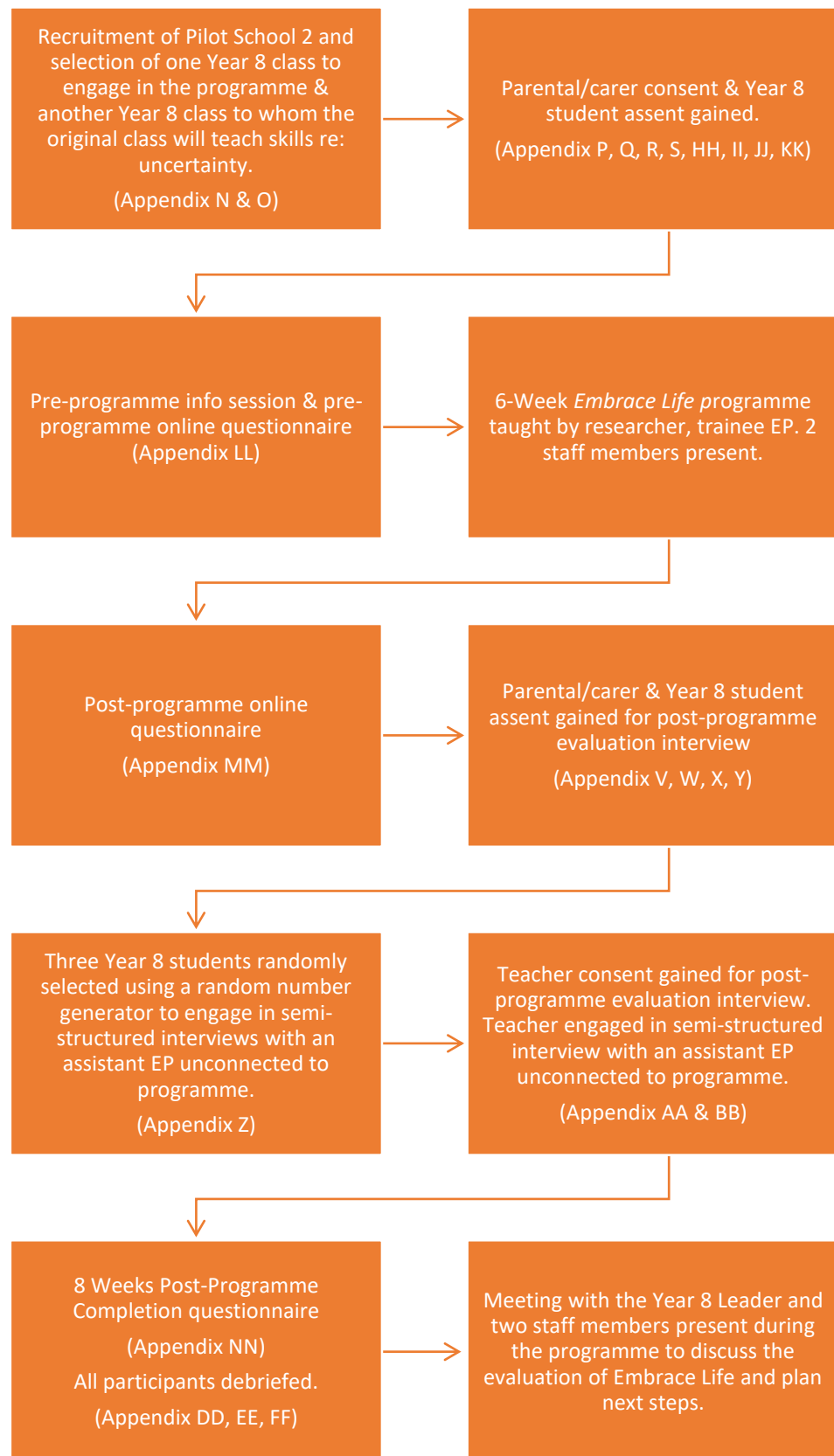


Figure 10. Procedure Study 2 (Pilot 2)

Participants completing the online questionnaire (pre/post/eight weeks post) were allocated a code word and they entered this code word each time they completed the questionnaire. Only the researcher and the research supervisor had access to the code words and after completion of the final questionnaire, the list of code words was permanently deleted. The use of code words allowed participant responses pre and post programme to be compared.

Participants engaging in the *Embrace Life* programme were all allocated an *Embrace Life booklet* with activities to complete in each session and at home (See Appendix CCC). This booklet was in the form of a PowerPoint and was also used as a visual stimulus during the sessions. All sessions were delivered by the same researcher, who is a trainee educational psychologist and has received training in cognitive behavioural approaches (CBA) and mindfulness (i.e. Using CBA with children in schools training & an 8-week introduction to mindfulness stress-based reduction).

Semi-structured interviews (SSIs) were audio-recorded on a Dictaphone and completed by an EP or assistant EP unrelated to the project. It was felt that the researcher could not carry out the SSIs as it could lead to social desirability and consequent participant bias, when a participant behaves in a way that he/she feel the researcher wishes them to behave (Howell, 2015). This bias would have been further exacerbated by the researcher having developed and implemented the programme. Similarly, the researcher conducting the SSIs could have led to researcher bias, influencing the interview to convey positive evaluations of the programme either consciously or subconsciously (e.g. delving further into more positive evaluations; neglecting negative evaluations or prompting a reframing of the evaluation via questioning). Potential drawbacks of the researcher not conducting the SSIs are discussed further in Part 3 Section 3.7 and include: potentially reduced depth gained in the SSIs and reduced familiarity and security of participants with the unknown interviewers.

Recordings of the SSIs were transferred to a secure computer to which only the researcher had the password. Recordings were transcribed and anonymised seven days after interview and afterwards the recordings permanently deleted. Pseudonyms are used in the transcripts and results.

Following the qualitative evaluation of Pilot 1 and the researcher experience of delivering the programme, some content changes were made to the *Embrace Life* programme. The changes with an accompanying rationale are presented in Appendix GG and are explained further in the results.

Additionally, the main procedural differences between Pilot 1 and 2 are outlined in Figure 13 below:

- Pilot School 1 agreed to a parent information session regarding *Embrace Life* prior to the programme commencing; Pilot School 2 did not as the school felt parents would not attend.
- In the final session of Pilot 1, YP taught skills learned to each other as other YP were not available to engage with this session; whereas in Pilot 2, the YP taught skills to Year 8s in a different form group.
- Vignettes were added to the Pilot 2 online questionnaires (See Measures for more details).

## 7.7 Participant Information: Study 1

Table 10 *Participant Information: Study 1*

Session No:	Number of Participants	Role
<b>Session 1</b>	3 EPs from EPS 1	PEP; Senior EP; Maingrade EP
	2 EPs from EPS 2	PEP; Maingrade EP
	1 EP from EPS 3	Maingrade EP
<b>Session 2</b>	1 EP from EPS 1	Maingrade EP
	2 EPs from EPS 2	PEP; Maingrade EP
	1 EP from EPS 3	Maingrade EP

## 7.8 Participant Information: Study 2

Table 11 *Participant Information: Study 2*

<b>Pilot No</b>	<b>Schools Contacted</b>	<b>Schools who agreed to take part</b>	<b>Total Student Participants &amp; Mean Age</b>	<b>Total participants involved in evaluation</b>
1	1	1	27 students (12 males; 15 females) <b>Mean age:</b> 13 years	3 students (1 female; 2 males); 1 staff member (1 female)
2	8	1	27 students (27 males) <b>Mean age:</b> 12.2 years	3 students (3 males); 2 staff members (1 male; 1 female)

Information regarding the pilot schools is provided in Appendix OO.

A number of participants were excluded from the quantitative and qualitative analyses due to incomplete data, not completing the questionnaire or withdrawal from the study. Exact numbers excluded can be found in Part 2, Section 10 and the exclusion of participants is reflected on in Part Three, Section 3.7

The sample size is deemed ample for collecting participant generated textual data (qualitative surveys) and for utilising interactive data collection methods (interviews) for the purpose of thematic analysis (Braun & Clarke, 2013).

Neuroplasticity is the brain's ability to change continuously, adapting and learning in response to sensory and environmental input (Kanwal, Jung, & Zhang, 2016). Adolescence represents a critical window in which neuroplasticity occurs (Blakemore & Frith, 2005). Universal, preventative approaches endeavour to intervene before problems occur (Offord, 2000) and therefore, intervening earlier was deemed beneficial. Furthermore, in adult populations, intolerance of uncertainty (IU) has been found to be relatively stable over time as patterns of beliefs, attitudes and behaviours have had time

to become more deeply entrenched (Cornacchio et al., 2018). Consequently, this age group (12-13 years; Year 8) was selected as adolescence is a time in which many of the cognitive processes associated with processing and managing uncertainty and decision-making are still developing and maturing and are therefore more open to change (Kanwal et al., 2016; Osmanagaoglu, Creswell, & Dodd, 2018). The thesis wished to deliver Embrace Life to Year 7s; however, the youngest, adolescent-aged year group available in Pilot School 1 and 2 was Year 8.



## 7.9 List and Details of the Measures Used in the Study

Table 12 *List and Details of the Measures Used in the Study*

<b>Measures</b>	
<b>Study 1</b>	<ul style="list-style-type: none"> <li>There were no measures required for Study 1 as the primary focus was on the EP development and qualitative evaluation of a programme to promote resilience to radicalisation.</li> </ul>
<b>Study 2</b>  <b>Intolerance of Uncertainty Scale for Children (IUSC; Comer et al., 2009)</b>	<ul style="list-style-type: none"> <li>The online questionnaire for Pilot 1 &amp; 2 (Appendix T, U, CC, LL, MM, NN) contains the 27-item Intolerance of Uncertainty Scale for Children (IUSC; Comer et al., 2009) to explore RQ5. The justification for using the IUSC in the study is demonstrated in Section 7.10 in relation to its reliability and validity for use with YP.</li> <li>Intolerance of uncertainty (IU) can be defined as negatively perceiving and responding to uncertainty-inducing information which can lead to avoidance (Ladouceur, Gosselin, &amp; Dugas, 2000).</li> <li>Total IUSC scores are calculated by summing scores on all 27 items. The lowest possible score on the IUSC is 27 (low intolerance of uncertainty) and the highest possible score is 135 (high intolerance of uncertainty). Within this study, scores that decreased on this measure would indicate that the programme was successful in strengthening tolerance of uncertainty.</li> <li>RAM theory focuses on the relationship between personal uncertainty specifically in response to motivational conflict and its link to ideological extremes (McGregor et al., 2013); however, the research around RAM measured levels of uncertainty and/or perceptions of uncertainty more generally. For example, the following measures were used to measure uncertainty in various studies related to RAM: Felt Uncertainty Scale (McGregor et al., 2013); Emotional Uncertainty Subscale (McGregor, Nash, Mann, et al., 2010). Thus, the IUSC which measures intolerance of</li> </ul>

	<p>uncertainty generally was felt to be appropriate by the researcher, especially as it has been specifically adapted for YP.</p>
<p><b>Study 2</b></p> <p><b>Qualitative questions</b></p>	<ul style="list-style-type: none"> <li>• The online questionnaire completed post-programme delivery in Pilot 1 and 2 (Appendix U &amp; MM) each contain eight qualitative questions to explore RQ6 and RQ7.</li> </ul>
<p><b>Study 2</b></p> <p><b>Uncertainty Vignettes</b></p>	<ul style="list-style-type: none"> <li>• The online questionnaires utilised in Pilot 2 each also contain two uncertainty vignettes (Appendix LL, MM, NN) to explore RQ8. The uncertainty vignettes present scenarios that prompt personal uncertainty in the academic and social domains (See Appendix PP for all vignettes). These scenarios were developed by the researcher and the YP are then asked: <ul style="list-style-type: none"> <li>❖ how they would respond to the situation (open-ended question);</li> <li>❖ how confident they would feel dealing with it (measured on a 10-point Likert Scale; 1: not at all confident- 10: extremely confident).</li> </ul> </li> <li>• The vignettes were added to Pilot 2 to explore how engaging with <i>Embrace Life</i> may have affected confidence and strategies used to cope with uncertainty. It was hypothesised that this would add more depth to the data analysis as the IUSC alone explores IU disconnected from context, unlike vignettes.</li> <li>• Although piloting is recommended for the use of vignettes and is common practice (Hughes &amp; Huby, 2012), the timescales of the study did not allow for piloting. The vignettes were developed by the researcher and revised by the research supervisor to enhance construct validity (i.e. to ensure that they measure/elicit what they were endeavouring to measure/elicit). As this is a preliminary exploratory study, the study provides information for future researchers who choose to use vignettes in personal uncertainty research.</li> <li>• Vignettes have been used with children to gain their views about their family (Smart, 2005), long-term foster care (MacAuley, 1996), and violence amongst their peers (Barter &amp; Renold, 2000). A common critique of vignettes is the potential distance between</li> </ul>

	<p>the vignette and social reality (Barter &amp; Renold, 2000). For example, how people think they may respond to a given situation may not always represent reality (Barter &amp; Renold, 2000), affecting construct validity. Therefore, other data collection techniques were used to triangulate the findings (IUSC; qualitative questions; interviews). This reflects common practice, whereby vignettes are often used in conjunction with other data collection techniques (Barter &amp; Renold, 2000).</p>
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### **7.10 Reliability, Validity & Trustworthiness of the Study**

Reliability refers to the consistency of the study (i.e. the possibility of generating the same results using the same measures, analyses or methods; Yardley, 2008). Validity refers to how successful a measure, analysis or method is in capturing what it endeavours to capture (Braun & Clarke, 2013). Importantly, Lincoln & Guba (1985) posit that reliability and validity align with a positivist paradigm and are not suited to assessing qualitative research. For example, reliability is often associated with the ability to replicate a study and yield the same results; however, qualitative research acknowledges that adopting the same methodology is unlikely to guarantee the same result (Braun & Clarke, 2013; Yardley, 2008). This occurs because the researcher is deemed an active participant in co-constructing knowledge in the qualitative research process and qualitative research is interested in understanding the unique perspectives of participants (Braun & Clarke, 2013). Lincoln & Guba (1985) propose four components of trustworthy qualitative research that are deemed to map on to reliability and validity: credibility; transferability; dependability; and confirmability. Table 14 & 15 below outlines the reliability, validity and trustworthiness of the study.

Table 13 *An Analysis of the Reliability & Validity of the Study*

	<b>Reliability</b>	<b>Validity</b>
<b>Study 1</b> <b>Nominal</b> <b>Group</b> <b>Technique</b> <b>(Boddy,</b> <b>2012)</b>	The protocol for NGT was followed as per NGT guidelines (Appendix I; Boddy 2012) and this aids replicability.	<p>NGT successfully achieved its outcome: idea generation for programme development. This is discussed in the results section.</p> <p>There is limited research on the extent to which the group data gleaned from NGT is an accurate representation of the views of its individual members (Porter, 2012). However, the EP evaluation in Study 1 Session 2 provided opportunities for individual feedback on the core components and themes and how it led to programme development.</p>
<b>Study 2</b> <b>IUSC</b> <b>(Comer et</b> <b>al, 2009)</b>	<p>The IUSC has demonstrated strong internal consistency (<math>\alpha = .92</math>; Comer et al., 2009), meaning that the items within the test correlate highly with each other. Cronbach's alphas greater than .80 are posited to demonstrate acceptable reliability (Clark &amp; Watson, 1995).</p> <p>Internal consistency is a key factor in the reliability of a measure (Howell, 2013). Therefore, the</p>	<p>The IUSC has demonstrated convergent validity amongst 7-17-year olds evidenced by significant associations between IUSC scores and anxiety and worry (Comer et al., 2009). For example, amongst 16-17-year olds, the IUSC demonstrated large associations with YP's self-reports of anxiety (<math>r = .77</math>, <math>p &lt; .005</math>) and worry (<math>r = .76</math>, <math>p &lt; .005</math>).</p> <p>Similarly, high IUSC scores have been found to be associated with generalised anxiety disorder (GAD; Read, Comer, &amp; Kendall, 2013). Convergent validity is the degree to which a measure correlates with another measure with which it is theoretically related (Howell, 2013).</p>

	thesis posits that the IUSC is a reliable measure to use with YP.	Therefore, the thesis posits that the IUSC is a valid measure to use with YP that will measure intolerance of uncertainty accurately.
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Table 14 *An Analysis of the Trustworthiness of the Study*

<b>Trustworthiness of the Study (Lincoln &amp; Guba, 1985)</b>	
<b>Credibility</b>	Credibility refers to the believability and accuracy of the methodology and findings. A 15-point checklist for good thematic analysis was conducted to improve credibility (Appendix QQ; Braun & Clarke, 2006). Triangulation was also used to increase the credibility of the findings. For example, an anonymous online questionnaire and a semi-structured interview were used in Study 2 to triangulate perceptions of the programme. Lastly, the credibility of vignettes is critiqued in the measures section and reflected on in Part 3.
<b>Transferability</b>	Transferability provides evidence that the study's findings could be applicable to other contexts, times and populations (Lincoln & Guba, 1985). Transferability is enhanced through a clear outline of the methodology and research design to help the reader understand the study's relevance. Therefore, participant details, the research context (Appendix OO) and the research design, methodology & measures are clearly defined in the study to aid transferability.
<b>Dependability</b>	Dependability is the extent to which the research could be repeated to yield similar findings (Lincoln & Guba, 1985). Dependability can be further improved by noting any changes to the methodology that may explain the findings. Dependability was aided by clearly defining the methodology and noting changes that took place throughout the research process (outlined in the results section).
<b>Confirmability</b>	Confirmability is the extent to which the findings are supported by the data set when examined by others (Lincoln & Guba, 1985). An investigator triangulation was conducted where a trainee EP colleague

	<p>matched data excerpts to themes at a success rate of 71.4% without having seen the data or themes before (Appendix RR). This provides evidence that the TA conducted reflects the data set accurately (Denzin, 1989) and aids confirmability.</p>
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## 8. Ethical Considerations

Ethical approval was sought from the Cardiff University ethics committee. The study met the ethical requirements of Cardiff University School of Psychology Ethics Committee and is in accordance with the principles of ethical practice set out by the British Psychological Society (2018). Information letters, consent or assent forms were provided to participants and consent gained prior to participant participation. Participants could decline to participate at any stage in the study without being asked why. Participants were fully debriefed after the study completion. Ethical issues and resolutions pertaining to the study are outlined below.

Table 15 *Ethical Issues Relevant to the Study and How These Were Resolved*

<u><b>Ethical Issue</b></u>	<u><b>Resolutions</b></u>
<b>The sensitive and emotive topic of radicalisation</b>	<p><u><b>Study 1 &amp; Study 2</b></u></p> <p>Discussing radicalisation with YP, parents and staff was considered to be highly emotive. Consequently, the thesis was divided into two different studies:</p> <p>Study 1 explored the development of a universal programme to promote resilience to radicalisation through strengthening YP's tolerance of personal uncertainty;</p> <p>Study 2 involved the implementation and evaluation of the programme.</p> <p>The original rationale for the programme development and the theoretical underpinning was shared with all participants. However, the wording was adapted for Study 2 as the focus of Study 2 was on promoting resilience to radicalisation indirectly through helping YP become more tolerant of personal uncertainty and developing their resilience generally.</p> <p>For example, words such as <i>radicalisation</i> were conveyed using less emotive synonyms in Study 2 (See Appendix N-Q), such as <i>rigid, inflexible thinking; lack of flexibility in thinking</i> etc.</p>
<b>Anonymity</b>	<p><u><b>Study 2</b></u></p> <p>Questionnaire data was stored on Qualtrics and only accessible by the password by the researcher and the research supervisor.</p> <p>Each participant was allocated a code word and asked to enter this code word each time they completed the questionnaire.</p>



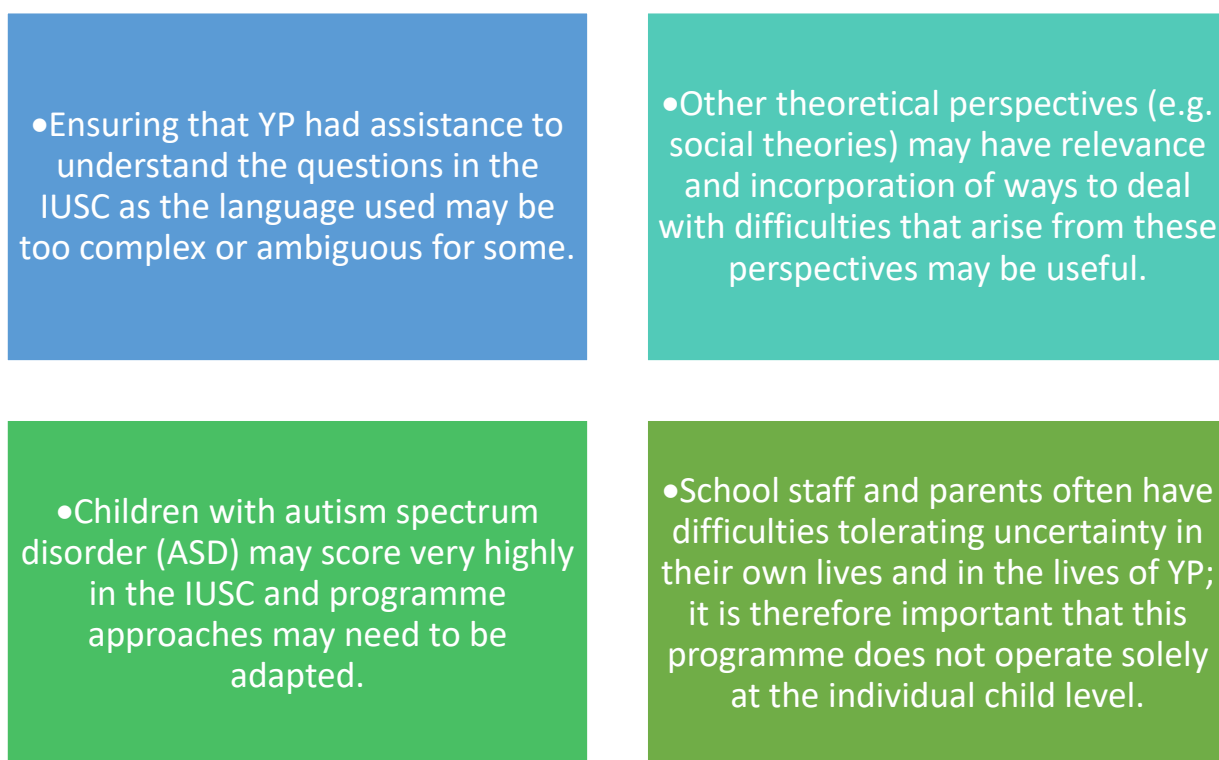
	<p>The use of code words for the online questionnaire ensured that only the researcher and research supervisor could connect the data to the participants and responses pre and post programme could be compared. The rationale for keeping a document of code words and matching names is to protect against young people forgetting their code word and thus, invalidating the data through missed responses.</p> <p>Full anonymity was guaranteed after the list of code words was permanently deleted following completion of the last questionnaire. Similarly, interview data were transcribed and anonymised 7 days after interview completion and original audio recordings deleted.</p>
<p><b>The researcher knowing the scores achieved on the Intolerance of Uncertainty Scale for Children (IUSC; Comer et al., 2009)</b></p>	<p><b><u>Study 2</u></b></p> <p>Within the information letters (Appendix N-Q), it was stressed that any YP taking part are receiving a universal programme and thus, participation in the programme does not necessarily mean that the young person has difficulties with uncertainty.</p> <p>Scores in the IUSC (Comer et al., 2009) has been found to be strongly associated with anxiety and depression in children and YP in a recent meta-analysis (Osmanagaoglu et al., 2018). However, Comer et al. (2009) emphasise that the IUSC should not be used to diagnose or categorise children. In terms of anxiety or GAD, the IUSC does not replace the need for a thorough clinical diagnosis and therefore, the questionnaire alone is not enough to share with parents in any diagnostic capacity (Comer et al., 2009). Thus, parents/carers and participants were informed that participants would not receive individual feedback regarding participant scores on the questionnaire.</p>
<p><b>The preliminary, exploratory and preventative nature of the study</b></p>	<p>Sklad &amp; Park (2017) emphasise that effective universal preventative approaches are those that have merit regardless of the ideal prevention goal (e.g. preventing radicalisation). This may be because it is very difficult to ascertain if a preventative intervention has been successful as ideally the prevented phenomenon does not occur or the intervention may provide benefits in the future, which is not usually measured unless the study is longitudinal (Offord, 2000; Sklad &amp; Park, 2017).</p> <p>Consequently, in attempting to strengthen tolerance of personal uncertainty, the study endeavoured to provide benefits to the YP involved that did not just revolve around the optimal goal of gathering preliminary evidence for universal approaches to radicalisation prevention. This included managing uncertainty and motivational conflict, resilience building, developing coping skills</p>

	<p>to also deal with phenomena related to uncertainty such as anxiety and worry.</p> <p>Furthermore, in the analysis and interpretation of the findings, it was important to emphasise the preliminary and exploratory nature of the study and that findings should be interpreted with caution, especially due to small sample size and low participant responses to the online questionnaire. The function of the study is to pave the way for other research in the area of personal uncertainty, RAM theory and radicalisation.</p>
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## **9. Results: World Caf é & Nominal Group Technique Analysis (Study 1)**

EP perceptions regarding the relevance of RAM theory in the process of radicalisation were explored via Session 1 of the EP working group (RQ1) through the presentation on

RAM (See Appendix NNN.1) and the world café method previously outlined (Appendix H). Discussions were recorded on a paper tablecloth and photographs are evidenced in Appendix SS. A more in-depth account of EP reflections and discussion points is provided in Appendix TT. The main EP reflections to consider are represented below:



*Figure 11.* Summary of EP reflections relevant to programme development

It was hoped that dedicating time to the discussion of the relevance of RAM and understanding the rationale for a programme to strengthen tolerance of personal uncertainty would lead to more relevant and useful idea generation during the NGT (RQ2) and during discussions regarding the ideal implementation of the programme (RQ3).

Ideas generated from the NGT technique (See Appendix UU) were voted for and the researcher then used the frequency of votes and the inclusion criteria (Appendix I) to identify the core components and themes of the programme (RQ2). The justification for each component inclusion with reference to the research literature and the inclusion

criteria for selection is outlined in Appendix UU. The core themes and corresponding components are outlined below:

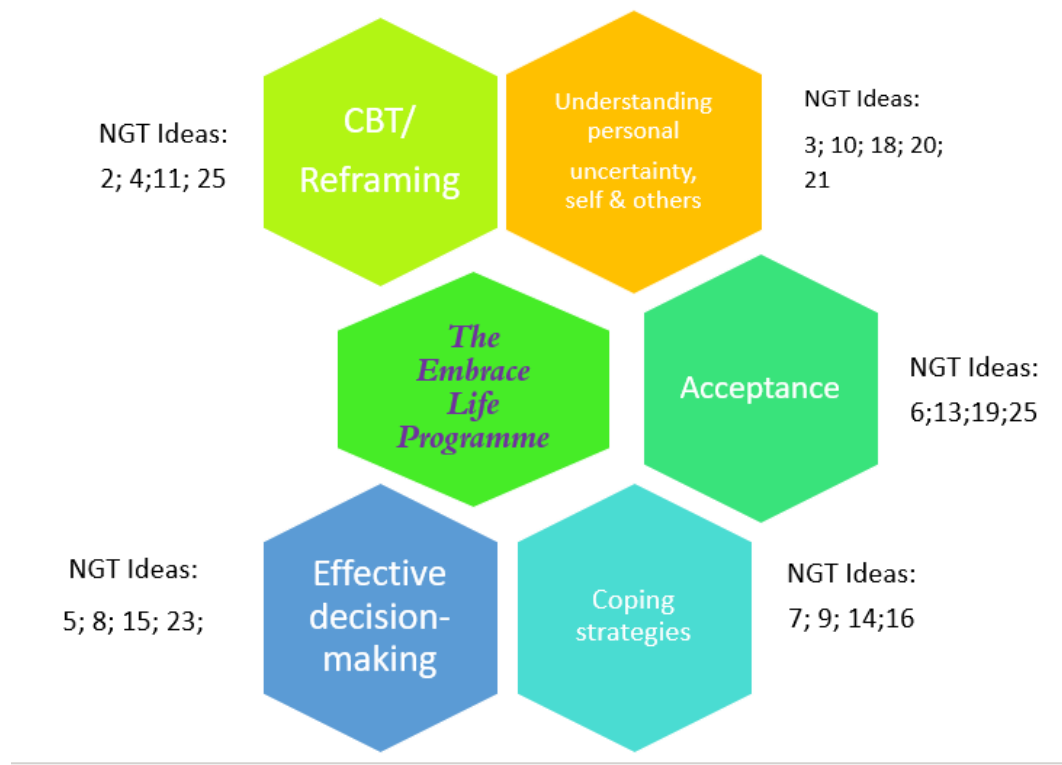


Figure 12. The core themes of the *Embrace Life* programme

Following this, EPs engaged in a group discussion on the key factors for successful implementation of the programme (RQ3) and are outlined below:

Table 16 *Views of the Key Factors for Successful Implementation and/or Delivery of the Programme Gleaned from the Educational Psychologist Working Group*

<b>Key factors for successful implementation and/or delivery</b>
Random Pairing to further develop peer relationships, facilitate discussion, & social use of language
Check-in activities to prompt reflection
Homework tasks so learning continues outside of the sessions
Training with key staff to ensure that they can support the YP and ensure work goes on outside of session
Meeting with parents to ensure they can support their children and help with tasks
Adapt materials to age, ability and interests
Ensure pre & post measure of personal uncertainty
A session plan which organises learning and ensures continuity between sessions
Cascading responsibility; first facilitated by EP; school to continue work afterwards
Clear title which clarifies the purpose of the project

A draft 6-session plan of the programme titled *Embrace Life* (Appendix J) was created by the researcher using the information gleaned from Session 1 and EPs provided a critique of the draft plan in Session 2 which was used to adapt the draft plan.

The EP critique fostered the following key changes/adaptations (Appendix VV for a more in-depth description):



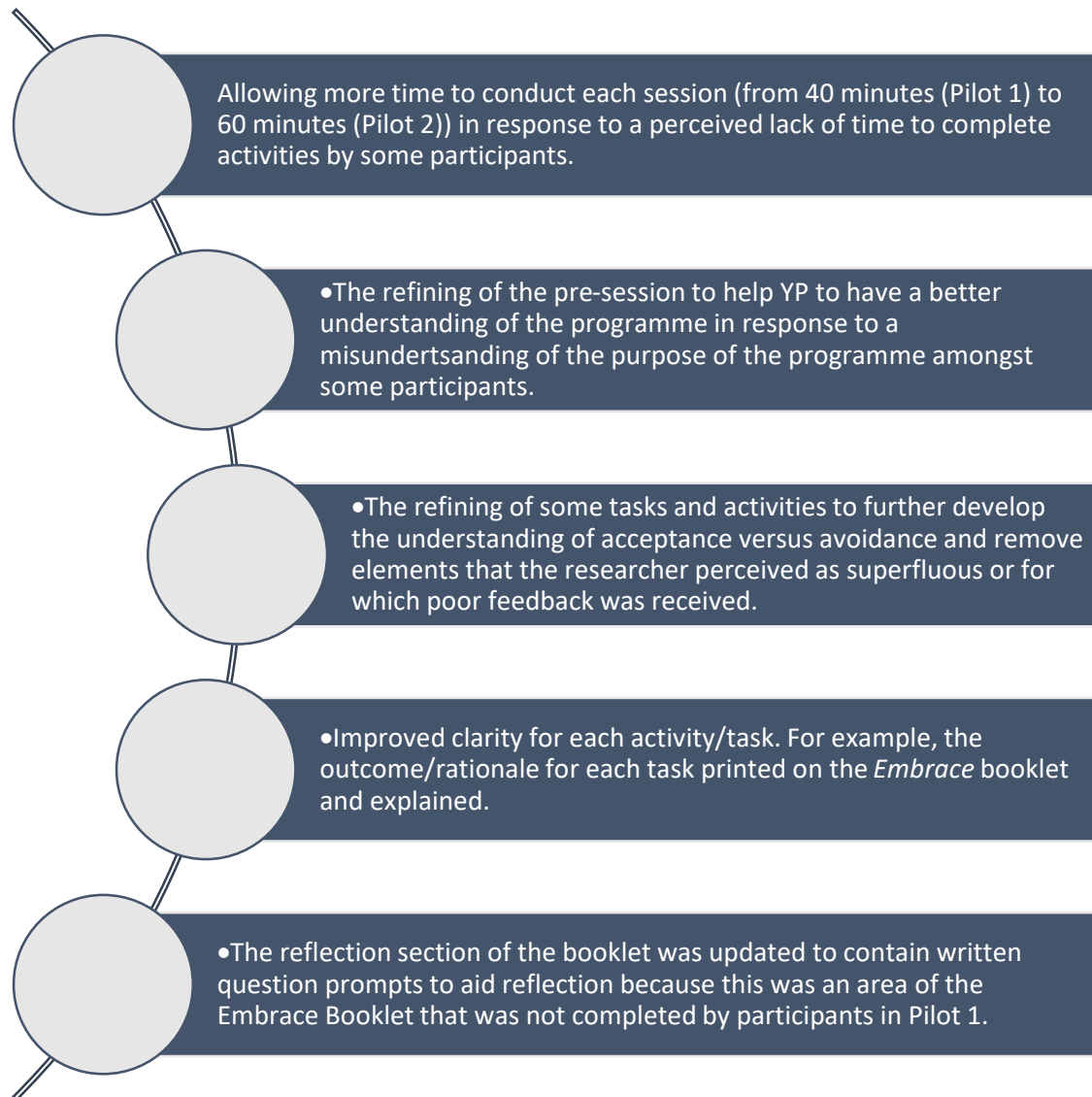
*Figure 13. Key changes made following the EP evaluation of the draft version of Embrace Life*

The results of Study 1 led to the final development of the *Embrace Life* programme Pilot 1 Plan (Appendix M) and booklet (Appendix CCC.3) which embodies the core components identified by EPs and the themes created by the researcher. The programme consists of six sessions as listed in Table 18 below and the session objectives remained the same for Pilot 1 and 2. As a way of incorporating the theme of acceptance throughout the programme, each session also contained 10 minutes of mindfulness (Appendix M for scripts). Mindfulness is when attention is intentionally guided to the present moment and the experience is explored with curiosity and acceptance (Bishop et al., 2004).

*Table 17 The Embrace Life Outline of Sessions (Pilot 1 & 2)*

<b>Session 1: Values</b>	To understand what my values are and when people may feel uncertain
<b>Session 2: Connections</b>	To understand the link between thoughts, feelings, body sensations, and behaviour during uncertainty
<b>Session 3: Acceptance</b>	To understand the difference between acceptance and avoidance of uncertainty and other feelings
<b>Session 4: Assertiveness</b>	To learn how to take assertive action
<b>Session 5: Decisions</b>	To learn how to make effective decisions
<b>Session 6: Empower</b>	To share some of the skills/techniques learned with other students

Following the qualitative evaluation of Pilot 1 and the researcher experience of delivering the programme, some changes were made to the *Embrace Life* programme for Pilot 2. All changes with an accompanying rationale are presented in Appendix GG and are clearly evidenced in the comparison between the two booklets. The most significant and important changes involved:



*Figure 14.* A summary of key changes made to the *Embrace Life* programme for Pilot 2 following the Pilot 1 evaluation



## **10. Results: Quantitative Data Analysis (Study 2)**

Firstly, YP's views of the level of enjoyment derived from programme engagement and the programme's perceived usefulness were evaluated. YP were asked to rate the usefulness and enjoyment of the programme from 1 (low usefulness/enjoyment) to 10 (high usefulness/enjoyment) via the online post-intervention questionnaire. Data was inputted into SPSS (Statistical Package for Social Scientists) and means calculated. 20 participants in Pilot 1 and 23 in Pilot 2 responded to this part of the questionnaire.

Secondly, to explore RQ5, scores on the IUSC on Pilot 1 and Pilot 2 as measured via the online questionnaire were inputted into SPSS. Separate descriptive analyses were carried out and then various statistical tests considered.

Finally, a non-parametric Friedman Test of differences among repeated measures was conducted on the total IUSC scores (the sum of scores across the scale) and an alpha level of  $< .05$  was employed.

A number of participants were excluded from the Friedman test analysis (12 participants: Pilot 1; 10 participants: Pilot 2) due to incomplete data, not completing the questionnaire or withdrawal from the study. Accordingly, only data from a total of 15 (Pilot 1) and 17 participants (Pilot 2) were utilised in the Friedman analyses.

## 10.1 Descriptive Statistics

Table 19 displays YP's views of the usefulness and enjoyment level of *Embrace Life* in both Pilot 1 and 2. These descriptive statistics convey a slight tendency towards positive evaluations of the programme. Furthermore, the mean perceived usefulness and enjoyment of the programme appeared to increase marginally in Pilot 2. Nevertheless, it appears that across the two pilots, the programme's perceived usefulness and the level of enjoyment experienced were at similar levels.

Table 18 *Participants' Rating of the Usefulness of and Enjoyment Derived From Participating in the Embrace Life Programme (Pilot 1 & 2)*

<b>Evaluative Question</b>	<b>No. of participants who responded</b>	<b>Pilot</b>	<b>Mean</b>	<b>Standard Deviation</b>
How useful was the programme on a scale of 1-10?  1= not at all useful 10= extremely useful	20	<b>Pilot 1</b>	5.55	2.259
	23	<b>Pilot 2</b>	6.04	2.820
How much did you enjoy the programme on a scale of 1-10?  1= extremely unenjoyable 10= extremely enjoyable	20	<b>Pilot 1</b>	6.05	2.188
	23	<b>Pilot 2</b>	6.48	2.826

Table 20 and 21 display an overview of the means, median and standard deviations of the IUSC scores at the different time points for Pilot 1 and 2 respectively. The samples for Pilot 1 and 2 had very different distributions of IUSC scores. The mean IUSC score, minimum and maximum scores were much higher in Pilot 1 than in Pilot 2. Overall, the descriptive statistics indicate a slight reduction in the mean IUSC scores over time in Pilot 1 and 2. Furthermore, the variation in scores increased in both samples, but there was a much higher increase in variation in Pilot 2. A quantitative analysis is carried out later to further explore these changes.

Table 19 *Descriptive Statistics for Participant Scores on the Intolerance of Uncertainty Scale for Children (IUSC): Pre-, Post- and 8 Weeks Post- Programme delivery (Pilot 1)*

	Total Pre IUSC	Total Post IUSC	Total 8WksPost IUSC
N Valid	15	15	15
Mean	87.8667	84.7333	83.6000
Median	86.0000	88.0000	80.0000
Std. Deviation	14.59387	15.41551	19.38998
Variance	212.981	237.638	375.971
Minimum	60.00	58.00	58.00
Maximum	110.00	110.00	113.00

Table 20 *Descriptive Statistics for Participant Scores on the Intolerance of Uncertainty Scale for Children (IUSC): IUSC Pre-, Post- and 8 Weeks Post- Programme delivery (Pilot 2)*

	Total Pre IUSC	Total Post IUSC	Total 8WksPost IUSC
N Valid	17	17	17
Mean	69.4706	64.8824	64.1176
Median	69.0000	69.0000	62.0000
Std. Deviation	8.55948	15.09090	14.64532
Variance	73.265	227.735	214.485
Minimum	49.00	36.00	37.00
Maximum	89.00	93.00	86.00

## 10.2 Statistical Assumptions of the Friedman Test

The data were checked to consider whether the following assumptions (Howell, 2013) of the Friedman test had not been violated. Violations can have implications for data analysis and should be considered carefully. The sampling method means that Assumption 2 is violated and implications for the analysis are discussed.

Table 21 *Statistical Assumptions of the Friedman Test Used in the Study*

### **Assumption 1: One group that is measured on three or more different occasions**

Each pilot contains one group of participants and each pilot involved the measuring of IUSC scores at three different time points (pre-, post-, 8 weeks post-programme).

**Assumption 2: Group is a random sample from the population**

Pilot 1 and 2 participants are drawn from a convenience sample. Schools were not randomly selected but were selected because they were the schools that elected to take part after receipt of gatekeeper letters. Similarly, the YP in each pilot were part of a form class and thus, were not randomly selected for participation. Thus, this quantitative analysis cannot lead to any generalisations of findings to the population of same-aged students in schools.

**Assumption 3: The dependent variable should be measured at the continuous or ordinal level**

The IUSC consists of a Likert scale which is classed as an ordinal variable (Howell, 2013).

**Assumption 4: Samples do not need to be normally distributed**

As the Friedman test is a non-parametric analysis that does not require a normal distribution of scores, no tests for normality were conducted.

### 10.3 Quantitative Results

A non-parametric Friedman test was carried out to compare the median IUSC scores at the three different time points in both Pilot 1 and Pilot 2. The Friedman test involves the ranking of total IUSC scores and thus the median is a more useful way of analysing the statistical test. There was no significant difference in IUSC scores between the different time points in both pilots.

Table 22 *Results of the Friedman Test*

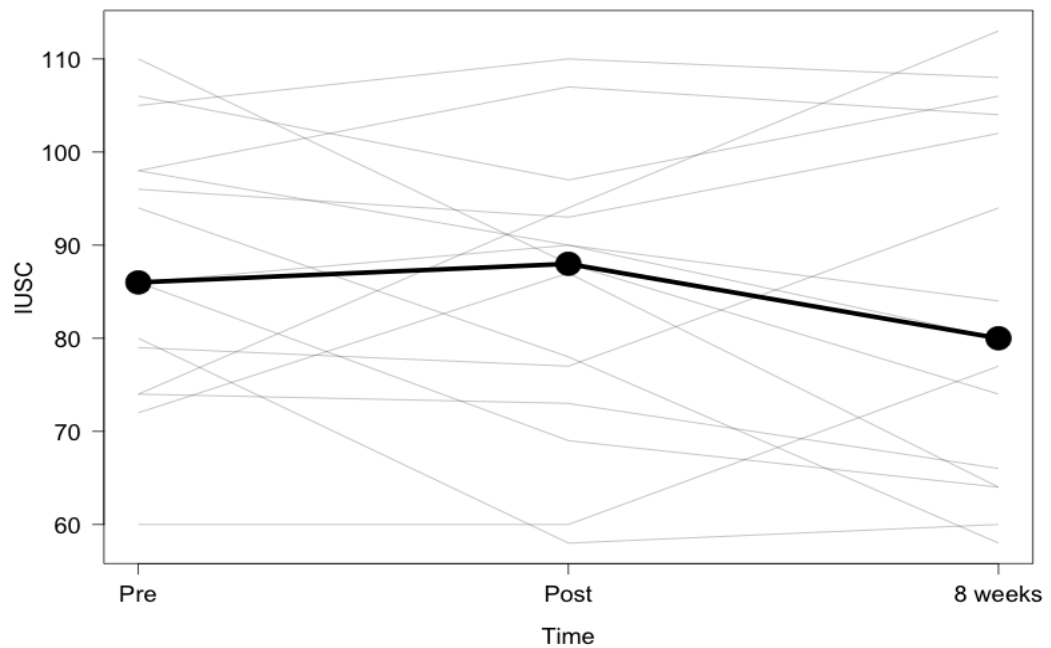
Pilot No.	Friedman Test Result
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Pilot 1	$\chi^2 (2, N=15) = 1.069, p = .586$
Pilot 2	$\chi^2 (2, N=17) = 3.294, p = .193$

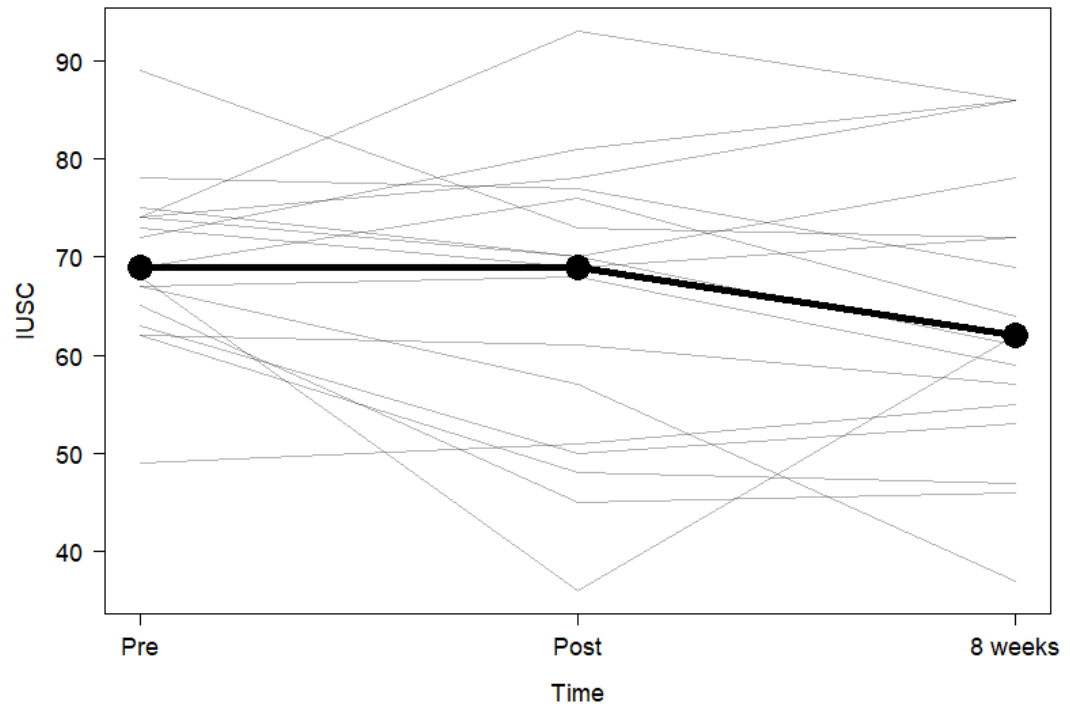
Consequently, the thesis accepts the null hypothesis as outlined below:

**Null Hypothesis (H<sub>0</sub>)-** There is no significant effect of the programme on the YP's IUSC scores in this study.

Figure 18 and 19 below shows the median scores of each participant (faint grey lines) and the overall median score (dark black line) at each time point. The quantitative results will be further explored in conjunction with the qualitative data in the discussion.



*Figure 15.* A line graph of Pilot 1 participants' median scores on the Intolerance of Uncertainty Scale for Children (IUSC)



*Figure 16.* A line graph of Pilot 2 participants' median scores on the Intolerance of Uncertainty Scale for Children (IUSC)

## **11. Results: Qualitative Data Analysis (Study 2)**

A number of participants were excluded from the qualitative analyses (6 participants: Pilot 1; 4 participants: Pilot 2) due to incomplete data, not completing the questionnaire or withdrawal from the study (1 student in Pilot 1). Thus, the qualitative data analysis is inclusive of 21 participants in Pilot 1 (Mean age: 12.9 years; 8 males, 13 females) and 23 participants in Pilot 2 (Mean age: 12.3 years; 23 males).

To explore RQ6 & 7 a rigorous thematic analysis (TA) was conducted using Braun and Clarke's (2013) seven stages of TA: transcription; reading and familiarisation; complete coding; searching for themes; reviewing themes and producing a provisional thematic map; defining and naming themes; and report writing. Furthermore, a 15-point checklist to aid the development of a good TA (Appendix QQ) was used to guide the TA process (Braun & Clarke, 2013). Despite this, Braun and Clarke acknowledge that TA's approach is viewed to have less interpretative power than other approaches such as interpretative phenomenological analysis (IPA) or discourse analysis (2006). This is because TA delves less into how language is constructed and used within the process and focuses more on commonalities or themes that exist within the data content (Braun & Clarke, 2006, 2013).

Interviews were transcribed verbatim using notation recommended by Braun and Clarke (2013) and participants' identifying information was anonymised through the use of pseudonyms.

During the initial coding stage, all speech transcribed was considered to represent meaning and was presented in the form of single words, phrases and chunks of speech. The entire dataset (examples included in: Appendix WW & XX) was then coded in relation to RQ6 & 7 (See Appendix YY for an example of a coded interview).

Codes were both data-derived (semantic) and researcher-derived (latent) in nature (Braun & Clarke, 2013). At the semantic level, this ensured that the TA valued the participants' language choices and constructs/perspectives by describing the data as they constructed it (Braun & Clarke, 2013). However, the addition of the latent approach within coding also rendered it possible to go beyond the superficial content of the data and draw on the researcher's own conceptual and theoretical frameworks to identify potential implicit meanings in the data (Braun & Clarke, 2013). This latent approach sought to contribute to a deeper analysis during the results and discussion. A summary of the initial codes for Pilot 1 and 2 are found in Appendix ZZ and AA respectively.



Following initial coding and as familiarity with the data increased, codes were grouped into distinct themes and subthemes and comparisons were drawn between Pilot 1 and 2 by combining thematic maps. The validity of proposed themes and subthemes was ensured through an iterative process which involved continuous reference to the whole dataset and coded data until a final thematic map that could be used in the study was produced (Braun & Clarke, 2013). Additionally, investigator triangulation was conducted to verify that the themes reflected the dataset (71.4% agreement; Appendix RR) as outlined previously when considering the trustworthiness of the study (Table 15).

Lastly, to explore RQ8, YP's confidence levels in tolerating and dealing with personal uncertainty pre-, post, and 8 weeks post-programme was gauged via vignettes in Pilot 2 and these were analysed to observe differences in perceived confidence levels over time. The vignettes were added to Pilot 2 to explore how engaging with *Embrace Life* may have affected confidence and strategies used to cope with uncertainty. It was hypothesised that this would add more depth to the data analysis as the IUSC alone explores IU disconnected from context, unlike vignettes.

### **11.1 Thematic Analysis**

The following subsections outline the themes in relation to the RQ6 and 7. The following thematic map (Figure 20) illustrates the themes and subthemes identified and the links between them. Appendix BBB collates all supporting data extracts relevant to each theme. Extracts highlighted in black derive from Pilot 1 and extracts in blue derive from Pilot 2.

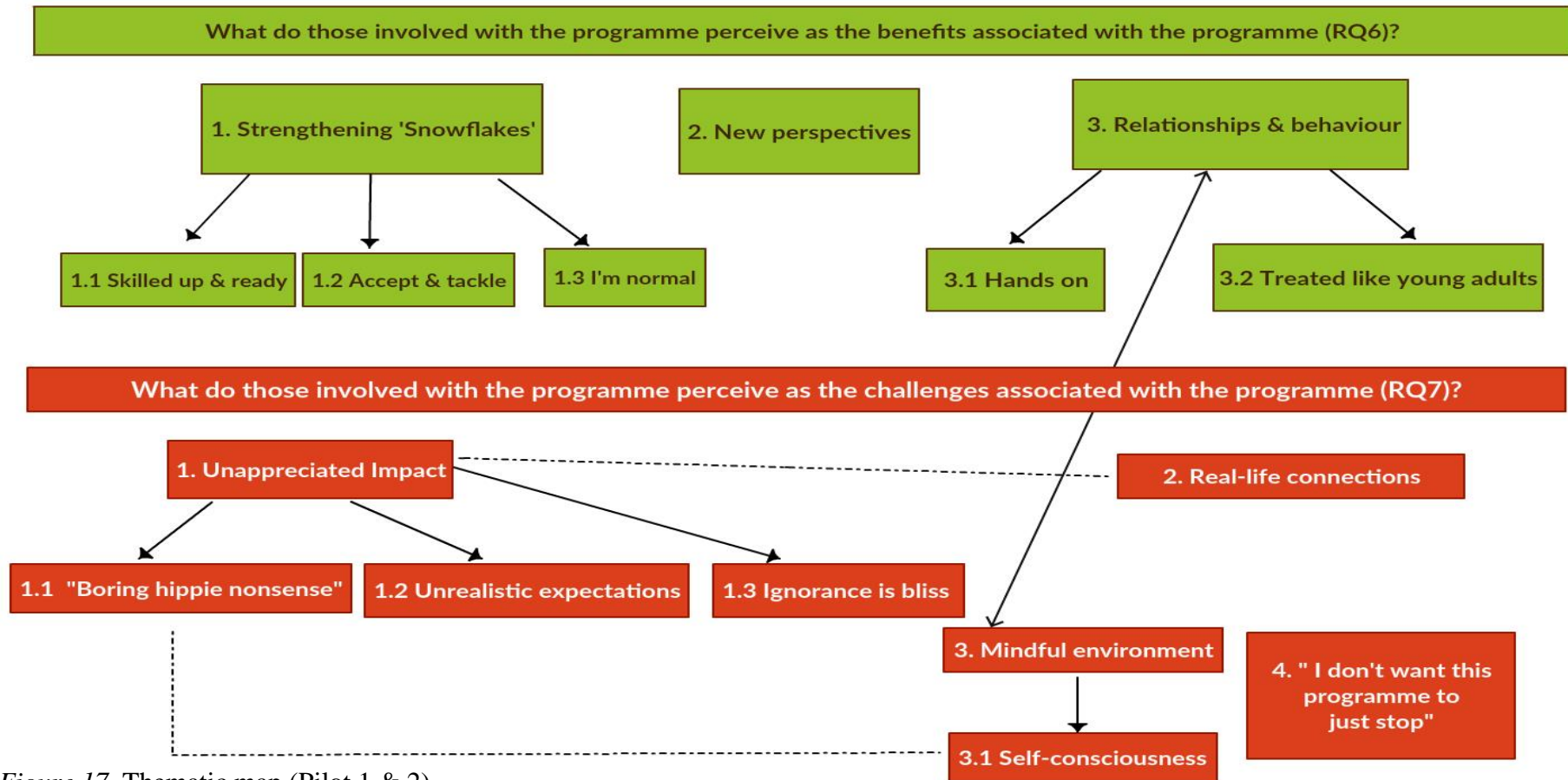


Figure 17. Thematic map (Pilot 1 & 2)

Note: Single directional solid arrows demonstrate hierarchical relationships between themes and subthemes; bidirectional solid arrows demonstrate lateral relationships between themes; and a dotted line indicates a tentative relationship between a theme/subtheme and a different theme/subtheme (Braun & Clarke, 2013)

### 11.1.1 Theme: Strengthening ‘snowflakes’

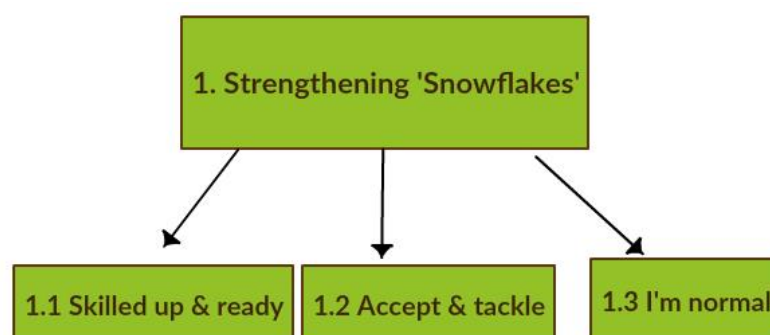


Figure 18. Strengthening snowflakes (mini thematic map)

A *snowflake* is an informal derogatory term defined as: “An overly sensitive or easily offended person, or one who believes they are entitled to special treatment on account of their supposedly unique characteristics” (Oxford Living Dictionaries, 2019). Aristotle (staff; Pilot 2) used the term when describing the usefulness of *Embrace Life* in developing resilience skills in the youth of today as he believed that YP “just do not deal with any kind of uncertainty or anxiety(.) they just really struggle”. Within this theme, YP also reflected on how the programme helped them develop useful skills to accept rather than avoid difficult situations (*Skilled up & ready*) and/or feelings and take assertive action to help move towards resolution (*Accept & Tackle*). Some YP also felt that it provided them with skills that they could use “later in life” (John; Pilot 2) and normalised feelings of uncertainty and difficulty (*I’m normal*).

Table 23 *Illustrative Quotes for Theme: Strengthening ‘Snowflakes’*

Theme	Sub-theme	Illustrative quote(s)
Strengthening ‘Snowflakes’	-	<p>“I know this generation is becoming a massive issue people don't like uncertainty((pause)) the term snowflake is used quite a lot(.) it's a perfect research project to do (.)...it's looked at how children can think about what's actually happening(.) calm down stay calm and actually make an ((pause)) you know (.) educated decision(.)”- ARISTOTLE (staff; Pilot 2)</p> <p>“...And the dilemmas were about(.) are you going to ask people for advice or are you going to go on your</p>

		<p>gut instinct...It was quite interesting to see how ((pause)) lads of that age haven't got a clue on their own(.)"- <b>ARISTOTLE (staff; Pilot 2) speaking on the benefits of the dilemmas within 'Embrace Life'</b></p> <p>"It (the programme) was really relevant to this day and age(.) It's such a big issue at the moment(.) Kids just(.) it's called the snowflake generation for a reason(.) They just do not deal with any kind of uncertainty or anxiety(.) they just really struggle and that (programme content) again was perfect(.)"- <b>ARISTOTLE (staff)</b></p>
	<b>Skilled up &amp; ready</b>	<p>"Yeah(.) Like stuff at home that happened (.) so you can like ((pause)) calm down quicker and talk it out"- <b>MAGGIE (YP) when discussing the use of reflective skills gained during the programme</b></p> <p>"To stay calm in stressful situations"- <b>(YP)</b></p> <p>"...I can use it (the programme) later in life when I've got loads of dilemmas because I had a dilemma from this which could be resolved to that (.) and I could use the same outcome to fix it(.)- <b>JOHN (YP)</b></p>
	<b>Accept &amp; tackle</b>	<p>"you can't just pull away from a situation ((long pause)) but if you just face it and say(.) 'look my bad'(.) it's a lot better(.) then you can just resolve things and there is no like tension ((pause))"- <b>NIGEL (YP) on what he learned from the programme</b></p> <p>"it also helped whenever I face a problem how(.) like emm (.) how to like resolve it and how to act upon it using like assertive actions and things like that(.)" – <b>ROBINSON (YP) on what he learned from the programme</b></p>
	<b>I'm normal</b>	<p>"I think it was really good because it sort of made you feel it was ok to be uncertain(.) like you can't always know what's going to happen all the time(.) I think it's sort of like you realise that other people were uncertain too(.)"- <b>NIGEL (YP)</b></p> <p>"That I am not the only person who feels like this sometimes"- <b>(YP)</b></p>

### 11.1.2 Theme: New perspectives



Figure 19. New perspectives  
(mini thematic map)

Both the staff and YP involved in the programme felt they developed new perspectives on situations that caused them difficulty or uncertainty as a result of taking part. The illustrative quotes below outline some of these new perspectives.

Table 24 *Illustrative Quotes for Theme: New Perspectives*

Theme	Illustrative quote(s)
New perspectives	<p>“I learned a lot about how to deal with certain issues when they arise in terms of ((pause)) challenging it because it can be quite frustrating is blaming someone else that I now get why those kids do that and how they need help thinking it through(.)”- <b>ETHEL (staff)</b></p> <p>“Like we could learn how to look at situations in a different light(.) So like if we used to look at them and get quite angry(.) we could actually be calm and find a different way to approach situations and like look at how other people might approach it with different mindsets and stuff like that”- <b>MAGGIE (YP)</b></p> <p>Well before the programme ((pause)) if I'd probably be more passive-aggressive than assertive to be honest ((pause))...And so I think the programme has kind of like opened my eyes to what's better (.)...because it's kind of like not getting angry and you're not like ((pause)) hmmm ((pause)) trying to take it out on them later(.) you're telling you're telling them that you don't want to do it like straight away - <b>MILTON (YP)</b></p>

### 11.1.3 Theme: Relationships & behaviour

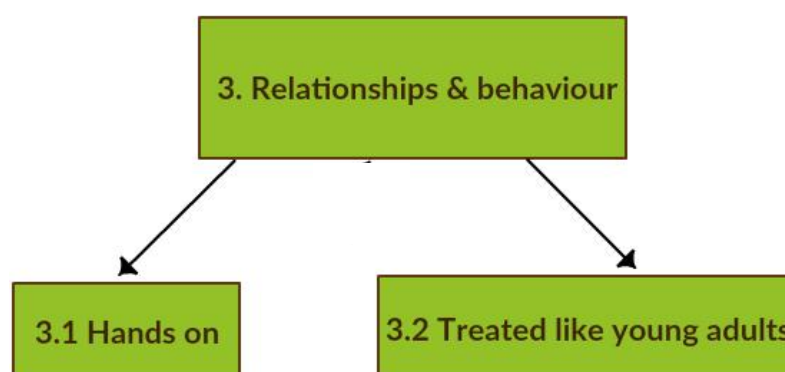


Figure 20. Relationships & behaviour (mini thematic map)

Staff in both Pilot 1 and 2 noted how the relationships fostered during the programme and the approach adopted were beneficial in promoting engagement, on-task learning behaviour and behaviour change. The illustrative quotes below outline how this was facilitated.

Table 25 *Illustrative Quotes for Theme: Relationships & Behaviour*

Theme	Sub-Theme	Illustrative quote(s)
<b>Relationships &amp; behaviour</b>		<p>“I think it’s helped them think about their actions and how they react to certain situations has really helped(.)”- <b>ETHEL (staff)</b></p> <p>“...the teaching support assistant who works with him I sent them all the materials and all the stuff and she was going through with him and talking about it and she said that she noticed a marked difference in his attitude and in his behaviour over there(.) so(.) it wasn’t just a kind of one-off kind of thing ((pause))”- <b>ETHEL (staff) speaking about a specific student’s behaviour outside of programme time</b></p> <p>“he explained that he felt that it was different he felt ((pause)) that PD (researcher) wasn’t judging him...and he felt valued by him(.)”- <b>ETHEL (staff) talking about the impact on a specific student with behavioural difficulties through him feeling valued during the programme</b></p>

	<b>Hands-on</b>	<p>I loved how hands-on it was(.) I think a lot of the times ((pause)) this idea of this ‘if you just speak to me(.) I won’t learn’ (.) whereas with this it was all about ((long pause)) being active really(.) they were always active; it was always them involved(.)- <b>ARISTOTLE (staff)</b></p> <p>“...it (the programme) was interactive which was nice so they weren't just sitting there (.) I think that was something else they were all expecting and that's what they're used to it's that you just sit but they didn't have to they could get up and they could walk around they swapped and what have you (.) so that was nice that was different for them and I think that they all enjoyed that and I think that helped them sort of that helped their confidence and also their belonging with the rest of the group” – <b>SAPPHO (staff)</b></p>
	<b>Treated like young adults</b>	<p>“but actually he (the researcher) had that trust(.) ...he just sort of trusted them to get on with it(.) a lot of teachers with chocolate or whatever it might be(.) they might not have that trust: ‘I couldn't possibly give them a Malteser because they’ll just mess around and eat it!’ Whereas(.) he was brave(.) he took risks and it worked really well(.)”- <b>ARISTOTLE (staff)</b></p> <p>“... they were treated more as young adults rather than just children and their views and their opinions and being able to voice what they wanted to say mattered and they were listened to”- <b>SAPPHO (staff)</b></p>

#### 11.1.4 Theme: Unappreciated Impact

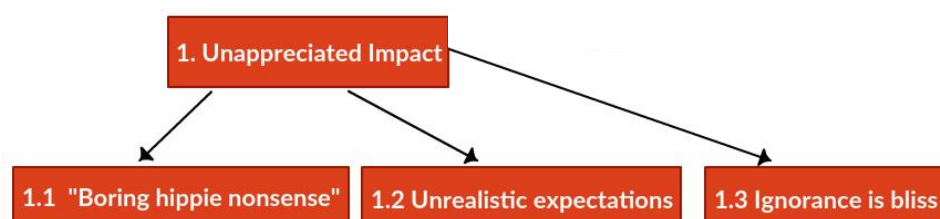


Figure 21. Unappreciated impact (mini thematic map)

Ethel (staff; Pilot 1) felt that some students did not realise or appreciate the impact that the programme was having on them and that this may be because activities necessitated them approaching difficult thoughts and feelings and therefore, potentially increased anxiety in the short term (*Unappreciated Impact*). A small proportion of YP shared Ethel’s view (*Ignorance is bliss*). Some students conveyed that they didn’t view the programme as useful, instead dubbing it “useless” or “boring” or a “waste of time” (*“Boring hippie nonsense”*). Ethel (staff; Pilot 1) also shared that some YP may have had unrealistic expectations about what the programme was going to offer (e.g. getting rid of mental health issues) which may have affected their perceptions of the programme.

Table 26 *Illustrative Quotes for Theme: Unappreciated Impact*

Theme	Sub-theme	Illustrative quote(s)
<b>Unappreciated Impact</b>		<p>“I don’t think they do appreciate what the programme did for them because they can’t see those little changes...”- <b>ETHEL (staff)</b></p> <p>“I struggled to understand the reason for these exercises”- <b>(YP)</b></p> <p>“I think some of the tasks probably made them feel more anxious ((pause)) ...they benefitted more in the long run(.)”- <b>ETHEL (staff)</b></p> <p>“my least favourite activity was the mindfulness because it was useless”- <b>(YP)</b></p>



	<p><b>“Boring hippie nonsense”</b></p>	<p>“we would not have time to label our thoughts as we during the activity, in a school environment”- (YP)</p> <p>“I think some of the tasks were a bit like ((pause)) boring to be honest((pause)) ...like some like some of the tasks seemed to drag on a bit you know what I mean? – <b>MILTON (YP)</b></p> <p>“I felt that the whole SPOTLIGHT OF ATTENTION thing was a bit stupid” (<b>young person’s emphasis</b>)- (YP)</p> <p>“I liked the mindfulness thing because its good but if you were really stressed out in school or something you don’t have time to sit and you cant close your eyes but I still liked it (sic)”- (YP)</p>
	<p><b>Unrealistic expectations</b></p>	<p>“I think also that they had hmmm ((pause)) an unrealistic expectation of what it was going to do ((pause)) I think they all felt that by the end of it (.) they would feel (.) better or different or whatever else and I think that they thought there would be a marked difference in how they thought or felt...”- <b>ETHEL (staff)</b></p> <p>“And especially(.) this came from two of the girls who are ((pause)) being mentored at the moment because they have self-esteem issues and anxiety and ((pause)) real issues with self-harm with one of them(.) I think I thought they thought this was going to provide them with the answer(.)”- <b>ETHEL (staff)</b></p>
	<p><b>Ignorance is bliss</b></p>	<p>“I feel I only worry to a minimal extent compared to others so I felt as though it opened ideas that I hadn’t considered making me worried” (YP)</p> <p>“I had to think about things I had never thought about” (<b>reported as a challenge</b>)- (YP)</p> <p>“I think they struggled thinking about things they don’t want to think about(.) -<b>ETHEL (staff)</b></p>

### 11.1.5 Theme: Real-life connections



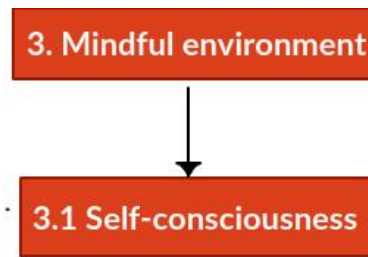
Figure 22. Real-life connections (mini thematic map)

The illustrative quotes below outline how participants felt that the programme could have benefitted from connecting activities and tasks more to the everyday life of YP, and the difficulties they experience (e.g. depression).

Table 27 *Illustrative Quotes for Theme: Real Life Connections*

Theme	Illustrative Quote
<b>Real-life connections</b>	<p>“I’ve said maybe about putting it into sort of everyday school life(.) once you’ve done the friend task or the finger trap or Malteser task or whatever it is(.) get them to write down like(.) right(.) you’ve got 5 or 10 minutes now give me an example of how this affects your every single day life in school(.)”- <b>ARISTOTLE (staff)</b></p> <p>“it’s getting them to think about everyday life like I’ve said before (.) In everyday life how are you going to apply this?”- <b>ARISTOTLE (staff)</b></p> <p>“i think it could’ve covered topics like depression and how to deal with that” - <b>(YP)</b></p>

### 11.1.6 Theme: Mindful Environment



*Figure 23.* Mindful environment (mini thematic map)

Both staff and students shared the importance of having a mindful environment in which to conduct the programme. For example, Sappho (staff; Pilot 2) felt that interruptions from people coming into the room disrupted the mindfulness practices and the flow of thought. Similarly, YP in Pilot 1 commented on the difficulty focusing and concentrating when others were being silly and distracting and/or the researcher had to deal with behavioural issues. Lastly, YP in Pilot 1 and 2 talked about feelings of self-consciousness when having to share thoughts/feelings, answer questions and engage in mindfulness activities. These feelings of self-consciousness were challenging for some and did not help the students to mindfully engage with tasks/activities.

Table 28 *Illustrative Quotes for Theme: Mindful Environment*

Theme	Sub-theme	Illustrative quote(s)
<b>Mindful environment</b>		<p>“I think you need a quiet space away from everybody hmmm ((pause)) you haven't got sort of people interrupting I think that's important if the programme was to be rolled out”- <b>SAPPHO (staff)</b></p> <p>“it was stressful when the others in class were being loud and annoying because it put me off and I didn't enjoy it as much as I could've when they were getting told off”- <b>(YP)</b></p>
	<i>Self-consciousness</i>	<p>“Can also make you feel a bit insecure as you have to share your opinions with the class.”- <b>(YP)</b></p> <p>“I think one of the challenges would probably have been being honest about everything you're saying(.)... Well you want a kind of like appear good but ((pause)) you don't if you don't think that then you kind of just lie about what you would do(.)”- <b>MILTON (YP)</b></p> <p>“When people come in (.) it's that sort of ((pause)) the child then thinks what you know ‘they're going to think we're stupid’ and then they're sitting here with a Malteser on their hand with their eyes closed ((pause)) you know it's that kind of thing?”- <b>SAPPHO (staff)</b></p>

### 11.1.7 Theme: “I don’t want this programme to just stop...”



Figure 24. “I don’t want this programme to just stop” (mini thematic map)

Staff conveyed concerns about the lasting impact of the programme and how maintaining any changes would need consideration. This theme is outlined in the illustrative quotes below.

Table 29 *Illustrative Quotes for Theme: “I don’t want this programme to just stop...”*

Theme	Illustrative quote(s)
<b><i>“I don’t want this programme to just stop...”</i></b>	<p><i>“Also(.) I don’t just want this programme to just stop because (.) how are we going to then progress it to make it worth-while (.) if it just ends then it’s not been worth anything(.)”- <b>ETHEL</b></i></p> <p><i>“...at the end(.) there is a follow-up(.) so it’s not just left(.) and they need to continue practising it to hmmm (.) make sure it works(.)”- <b>ETHEL</b></i></p> <p><i>“if you were going to improve it at all it would be that over lasting impact is (.) Are they going to record what they've done differently in the next 6 months? so from now till summer(.) how has this project changed their life? Is there something in place that could measure that or that can judge that?”- <b>ARISTOTLE</b></i></p>

## 11.2 Vignette Analysis

Pilot 2 participants' responses to vignettes and their confidence rating in dealing with an uncertainty-inducing scenario presented at three different time points (pre-, post, & 8 weeks-post programme delivery) are displayed in Table 30 and 31 below. The vignette analysis compared confidence between pre-programme and post-programme; and pre-programme and 8-weeks post programme. Participants' confidence ratings were compared to ascertain if their perceived confidence rating either increased, remained the same or reduced. The proportion of confidence ratings that increased, remained the same or reduced was then calculated (e.g. 11/22 respondents (50%) rated their confidence higher in dealing with an uncertainty-inducing scenario post-intervention). A summary of the main results of this is shown in Table 31 and 32 below. It is important to note that the vignettes were not piloted in this study and so the credibility and trustworthiness of the vignettes are compromised. This is reflected on in Part 3, Section 3.8.

Table 30 *Vignettes: A Comparison of the Self-Reported Confidence Ratings in Dealing with Uncertainty Pre-Programme and Post-Programme (Pilot 2)*

<b>Vignette Type 22 Respondents</b>	<b>Self-reported Confidence Rating Increased</b>	<b>Self-reported Confidence Rating Remained the same</b>	<b>Self-reported Confidence Rating reduced</b>
Academic Domain	50% (11 respondents)	27% (6 respondents)	23% (5 respondents)
Social Domain	73% (16 respondents)	9% (2 respondents)	18% (4 respondents)

Table 31 *Vignettes: A Comparison of the Self-Reported Confidence Ratings in Dealing with Uncertainty Pre-Programme and 8 Weeks Post-Programme (Pilot 2)*

<b>Vignette Type</b> <b>15 Respondents</b>	<b>Self-reported Confidence Rating Increased</b>	<b>Self-reported Confidence Rating Remained the same</b>	<b>Self-reported Confidence Rating reduced</b>
Academic Domain	80% (12 respondents)	13% (2 respondents)	6.66% (1 respondent)
Social Domain	80% (12 respondents)	13% (2 respondents)	6.66% (1 respondent)

## 12. Discussion

The thesis is divided into two studies. Study 1 aimed to co-construct a programme with EPs to promote resilience to radicalisation in YP using RAM theory as a theoretical base. Subsequently, the programme, *Embrace Life*, was developed to strengthen YP's tolerance of personal uncertainty. Following this, Study 2 aimed to deliver and evaluate *Embrace Life* in two pilot schools to consider its appropriateness and effectiveness in building resilience to radicalisation.

The following sections will discuss the key findings of Study 1 and 2 in relation to the research questions, whilst connecting those findings to current research and psychological theory. Furthermore, new insights resulting from the studies will be considered and critiqued. Strengths and limitations will be highlighted throughout and a summary provided after the discussion.



## **12.1 Research Question 1**

### **What are EPs' perceptions regarding the relevance of RAM theory in the process of radicalisation?**

RAM theory posits that difficulties tolerating personal uncertainty when confronted with motivational conflict can result in the fervent pursuit of another goal (McGregor, Nash, Mann, et al., 2010; McGregor et al., 2013). Engaging in RAM has been associated with idealistic, religious and behavioural extremes (McGregor et al., 2013) and thus, helping YP to be more tolerant of personal uncertainty could have protective benefits in relation to radicalisation (Sewell & Hulusi, 2016). The RAM presentation prompted EPs to consider the relevance of RAM theory in terms of the process of radicalisation and the implications for EP practice. The EPs discussed how significant political, cultural and societal events can be uncertainty-inducing (e.g. Brexit- the UK leaving the European Union (EU); debates around multiculturalism and immigration in the media). Some felt that RAM may be a useful way of explaining the tendency towards polarised views, xenophobia and rigid thinking. This relates to RAM research in which uncertainty-inducing threat has been found to stimulate increased zealotry in one's own religious beliefs, an increase in derogatory views of others' religious beliefs and significantly increase willingness to support religious warfare compared to controls (McGregor et al., 2008).

EPs commented that in times of uncertainty YP may have a need for leaders to show them the way and offer alternatives to feelings of uncertainty. The EPs surmised that this may leave YP vulnerable to engaging with extremist groups and organisations, which ties into the tendency towards highly entitative groups within uncertainty identity theory (Hogg et al., 2010). Highly entitative groups have a clear and rigid hierarchical structure in which group norms and expectations are explicit and these groups have been found to be more alluring in times of uncertainty (Hogg et al., 2010). Thus, for EPs, it was important to consider RAM theory in relation to other theoretical approaches to provide a deeper contextualised picture of the complexities of radicalisation.

Some EPs critiqued the behavioural inhibition system (BIS) (Gray & McNaughton, 2003) on which RAM theory is based as they felt human behaviour may not be so easily reduced down to a singular mechanistic model. These views align with modern EP practice, which emphasises considering environmental and social influences of behaviour in conjunction with consideration of individual psychological mechanisms and values intervening at

varying levels (e.g. individual, systemic, and organisational) to enact change (Bronfenbrenner, 1986; Kelly, Woolfson, & Boyle, 2017; Rhydderch & Gameson, 2010).

## 12.2 Research Question 2

**In developing a universal programme to strengthen YP's tolerance of personal uncertainty, what would EPs think would be most beneficial to include? What would be the 'core components'?**

During programme development, EPs identified core components that were felt to have the potential to strengthen YP's tolerance of personal uncertainty. These included:

- Approaches that incorporate cognitive behaviour therapy (CBT)/reframing
- Understanding personal uncertainty, self and others
- Acceptance
- Coping strategies
- Effective decision making

The core components elicited from EPs contained a mixture of reflecting on ways of thinking, accepting and normalising feelings, and incorporating strategies to assertively cope with difficulties. These components are also embodied in acceptance and commitment therapy (ACT; Hayes & Strosahl, 2004). There is limited robust research on the effectiveness of ACT in young populations (Gillard, Flaxman, & Hooper, 2018; Hancock et al., 2018); however, a recent review (Swain, Hancock, Dixon, & Bowman, 2015) found emerging evidence for the efficacy of ACT for children and YP. Furthermore, ACT incorporates mindfulness (Swain et al. 2018) and mindfulness-based approaches have been found to promote mental health and well-being in children and YP in an extensive and robust meta-analysis (Dunning et al., 2019). It is worth noting that the literature around ACT tends to deal with adults or YP who exhibit difficulties (Gauntlett-Gilbert, Connell, Clinch, & McCracken, 2013; Gucht et al., 2017; Hancock et al., 2018; Hayes, Levin, Plumb-Villardaga, Villatte, & Pistorello, 2013) and fewer studies deliver ACT at the universal, preventative level. An exception is a study by Gucht et al. (2017) in which a large randomized control trial (RCT) with adolescents at the universal level yielded no significant effect on mental health outcomes. This study involved a 4-session teacher-led whole class ACT intervention and thus, bears some similarity to *Embrace Life*. However, *Embrace Life* differs in the following ways and thus, adds to the literature:

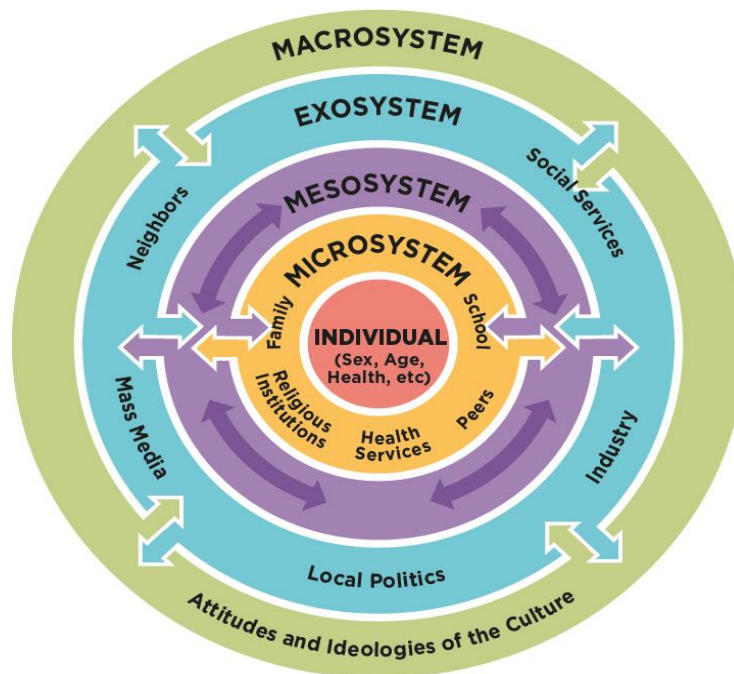
- The focus is primarily on personal uncertainty;
- Sessions took place over 6 weeks rather than 4 weeks;

- The programme components were co-constructed by a group of EPs and the programme was facilitated by a trainee educational psychologist with training in cognitive behavioural approaches and mindfulness. EPs may be more likely to have the necessary expertise, skills and psychological understanding that may be necessary for promoting change (Sewell & Hulusi, 2016; Greig et al., 2016).

### 12.3 Research Question 3 & 4

**How do EPs feel a universal programme to strengthen YP's tolerance of personal uncertainty should be delivered? What are EPs views regarding the programme that has been developed from the information gleaned from the working group?**

Bronfenbrenner's ecological model of development (1979) acknowledges the importance of viewing YP as existing within a series of complex systems that influence how a child conceptualises and experiences the world (e.g. home, school, community systems; See Figure 28 below).



*Figure 25. Bronfenbrenner's Ecological Systems Theory (1979)*

A consideration of systems is embedded in many frameworks used in EP practice (Woolfson, Kelly, Woolfson, & Boyle, 2017). Accordingly, EPs emphasised the importance of engaging with parents and school staff to equip them to support the YP involved in the programme. EPs also discussed how YP's tolerance of uncertainty may be influenced by how parents and school staff cope with uncertainty themselves. This hypothesised influence is evidenced in recent research where a significant link between maternal and child intolerance of uncertainty (IU) has been found in a preliminary study (Sanchez, Kendall, & Comer, 2016). Furthermore, the environmental influence of anxiety

has also been evidenced in an extensive children-of-twins study (Eley et al., 2015). Thus, a programme that does not seek to engage the adults around the YP in the process of change may have reduced benefits for YP. The researcher endeavoured to involve the home and school systems as suggested by the EPs. Parental and staff information sessions were offered to each pilot school. However, it was only possible to conduct one parental information session for Pilot School 1 and few parents accessed the session.

Additionally, EPs stressed the importance of ‘cascading responsibility’ in which *Embrace Life* was initially delivered by the researcher in collaboration with school staff, with the intention that these staff members could continue embedding the programme into the school system post-evaluation. EPs felt that this could help maintain any changes that may take place and help develop a school environment that was conducive to promoting tolerance of personal uncertainty. Consequently, the study included a staff member in each of the sessions in Pilot 1 and 2. However, staff members mainly observed and accepted direction rather than collaboratively led the sessions with the researcher. This may have been due to staff unfamiliarity with the programme materials and the lack of opportunities to train staff in the principles underpinning the programme due to the scope of the thesis and the research design selected. Furthermore, to embed a programme or change into any system, it is deemed necessary to have an *active purveyor* – an individual who is invested and is willing to progress and support the maintenance of systemic change who operates within that system (Nilsen, 2015; Perkins & Kelly, 2012). However, enthusiasm, investment and influence varied from Pilot 1 to Pilot 2. For example, as personal, social and health education (PSHE) lead, Ethel (staff; Pilot 1) had a vested interest in continuing to embed the principles of *Embrace Life* once the programme evaluation was complete and had visions of introducing it to other year groups, if appropriate. Conversely, Aristotle and Sappho (staff; Pilot 2) were present in the sessions but they may have lacked the influence in the school hierarchy to stimulate systemic change. Thus, considering the systemic context when implementing a group-based intervention may be very important in promoting long-lasting changes for YP. Therefore the difficulties engaging the home systems and the school system in Pilot 2 may affect the longevity of any changes that have occurred.

The EP evaluation of the programme conveyed that the EPs valued what was produced for the initial draft of *Embrace Life* and felt it had value for schools. The EPs felt that the basic structure of the programme and the learning content was reflective of the work

conducted during NGT and appeared to have a coherent structure (i.e. themes and components fit well together and paved a clear learning trajectory). They valued the incorporation of mindfulness and CBT-based approaches as a way of helping to promote acceptance and conflict resolution and the inclusion of key stakeholders (e.g. parents and staff) in developing the YP's tolerance of personal uncertainty too. The EPs also shared some critiques of the programme and had opportunities to share ways to improve its quality (Appendix VV). It conveyed the benefit of working collaboratively as the draft programme was perceived as overloaded with activities and containing some superfluous elements that added little value (e.g. certain energizers). Through open discussion and drawing on the professional expertise of the EPs, the programme was able to be refined by the researcher ready for implementation.

## 12.4 Research Question 5

**Does a universal programme designed to strengthen YP's tolerance of personal uncertainty lower participants' score on the Intolerance of Uncertainty Scale for Children (IUSC; Comer et al., 2009)?**

*Embrace Life* did not have a significant effect on YP's IUSC scores. However, the universal approach to programme delivery has implications for the interpretation of these results. The programme did not seek to target individuals who may be 'at-risk' of radicalisation as this targeted approach has been associated with the further marginalisation of minority groups (O'Donnell, 2016; Sklad & Park, 2017). In both pilots, there was a wide range in IUSC scores amongst participants as *Embrace Life* was delivered at the universal level to YP rather than targeting those who had high IU. The IUSC has a lower limit of 27 (low IU) and an upper limit of 135 (high IU) (Comer et al., 2009). Mean scores ranged from 60 to 110 in Pilot 1 and 49 to 89 in Pilot 2 in the Pre-IUSC measure. In this way, YP who scored low on the IUSC and therefore deemed themselves very tolerant of uncertainty engaged in the programme alongside those who scored higher in the IUSC. This variability may be a contributing factor to the lack of significant differences between the differing time points. Similarly, a universal programme delivered by Gucht et al. (2017) found that a 4-session teacher-led programme based on the principles of ACT had no significant impact on outcomes for YP. The majority of studies that have succeeded in reducing IU are those that have targeted vulnerable populations rather than working at the preventative, universal level (Osmanagaoglu et al., 2018).

However, this study also considers other factors beyond the decision to implement *Embrace Life* at the universal level. In adult populations, IU has been found to be relatively stable over time, meaning that IU may be less malleable to intervention (Cornacchio et al., 2018). When IU has been successfully reduced in adults, interventions have been conducted individually or in smaller groups (e.g. 4-8 participants) and conducted more intensively. For example, with adults, van der Heiden et al. (2012) conducted 14 weekly 45-min sessions individually, and Dugas et al. (2003) conducted group-based CBT to groups of 4-6 participants over 14 two-hour sessions. Therefore, the frequency and intensity of the programme sessions may also not have been sufficient to have had an impact on IUSC scores.



Due to the preliminary nature of this study, *Embrace Life* and its principles appeared to have difficulty transcending the boundaries of the sessions. For example, the school and home systems had limited engagement with the programme and were not factored into the research design. This may have also contributed to the lack of significant impact on IUSC scores. In a study that endeavoured to reduce IU in adolescents with ASD (Rodgers et al., 2017), parents received intervention on helping their child cope with uncertainty in everyday situations and the study provides preliminary evidence for engagement with the family system to help manage/reduce adolescent IU. This has implications for *Embrace Life* as the difficulties engaging with parents to support the principles in the programme may have reduced its potential effect.

Finally, whilst *Embrace Life* did not have a significant impact on IUSC scores, preliminary evidence suggests that YP may have felt that the programme helped them to develop coping strategies to deal with uncertainty. This is illuminated in the following subsections and the implications for promoting resilience to radicalisation discussed.

## 12.5 Research Question 6

### **What do those involved with the programme perceive as the benefits of the programme?**

From the evaluation of the programme, both the YP and staff felt that *Embrace Life* promoted resiliency skills. This was perceived to be facilitated by helping YP to accept uncertainty and other difficult emotions and to engage in assertive action to deal with difficult situations they may face (*Strengthening 'Snowflakes'; Skilled up & ready; Accept & tackle*).

The benefits listed connect with the principles of ACT (Swain, Hancock, Hainsworth, & Bowman, 2013). In this way, the preliminary evidence suggests that YP may have been empowered to accept that difficulty is inevitable and the programme sought to alter the relationship with that difficulty by promoting acceptance, flexible thinking and assertive action. Accordingly, both students and staff shared that they found themselves considering new perspectives on every-day difficulties (*New perspectives*), which could indicate preliminary evidence of increased psychological flexibility. The thesis posits that psychological flexibility could be viewed as the antithesis of extremist or radicalised thought, which is marked by rigid, inflexible thinking that can undermine or absolutely reject other views inherent in society without due consideration (Horgan, 2008; McGregor et al., 2013; Scarcella et al., 2016). Furthermore, RAM theory would suggest that if YP are more accepting of personal uncertainty during motivational conflict, they are less likely to take shelter in the fervent pursuit of other more extremist goals (McGregor, 2006; McGregor et al., 2012; McGregor et al., 2013); instead YP may be more likely to accept the difficulty that arises with motivational conflict and seek to assertively deal with what they face (*Accept & tackle*).

This was deemed beneficial by Aristotle (staff; Pilot 2) who dubbed the YP of today the “snowflake generation” because he felt they are less able to deal with difficulties independently and assertively. Instead, he perceived that they are more likely to avoid dealing with the issue directly by keeping quiet or enlisting their parents to help them (*Strengthening 'Snowflakes'*). Recent research has re-conceptualised mental health issues as being less connected to underlying individual pathology and more connected to when distress and adversity overpowers the individual resources/resilience available to cope (Rutten et al., 2013). By classifying ‘snowflake-ness’ as typical of this generation of YP,

it could imply that YP may be becoming less resilient than previous generations. However, a systematic literature review of the changes in mental health issues in YP over time reveal that mental health issues for YP are not any worse than they were previously (Bor, Dean, Najman, & Hayatbakhsh, 2014). This finding was also replicated in an English-based comparison of two adolescent cross-sectional studies which found that similar levels of mental health difficulties were found amongst adolescents in 2009 and 2014 (Fink et al., 2015). Thus, it would seem that all YP may benefit from efforts to promote resilience generally which falls in line with the aims of *Embrace Life* and that YP may not be any ‘snowflake-ier’ than previous generations, as Aristotle appeared to define the term. A noteworthy exception is that, in the studies discussed above, there was an increase in internalising problems amongst girls over time (Bor et al., 2014; Fink et al., 2015). This exception may have relevance to the thesis as IU is a significant predictor of anxiety in YP, with anxiety being an internalising disorder (Osmanagaoglu et al., 2018). Consequently, it may be that girls may benefit even more from the universal aspect of *Embrace Life* than their male counterparts due to the increased prevalence of internalising disorders amongst girls (Bor et al., 2014; Fink et al., 2015).

Furthermore, the programme was perceived to normalise feelings of uncertainty and/or difficulty for some students (*I’m normal*). The group-based aspect of the programme may have helped the YP to realise that difficulties are universally experienced, and the programme promoted flexible ways of engaging with these common difficulties (e.g. academic and personal uncertainty; motivational conflict). Gucht (2017) posits that stigma around mental health is reduced when mental health related issues are normalised through universal approaches to well-being promotion. In relation to RAM theory, the normalisation of personal uncertainty amongst peers could reduce the need to dampen these feelings through the passionate pursuit of ideological extremes (McGregor, Nash, Mann, et al., 2010).

Finally, staff felt that the practical, hands-on and interactive nature of the programme combined with the value placed on YP’s voices promoted engagement, learning and relationships within the programme (*Relationships & behaviour; Hands on; Treated like young adults*). Student engagement has been found to be strongly linked to the perceived climate that is created between teachers and students in the eyes of the students themselves (Fatou & Kubiszewski, 2017). However, the preliminary, exploratory nature

of the study signifies that these findings should be interpreted with caution and may not be generalizable to other school contexts or samples.

## 12.6 Research Question 7

### **What do those involved with the programme perceive as the challenges associated with the programme?**

Conversely, the evaluation of the programme revealed that some YP may not have appreciated the impact of the programme. Some YP reported that it was “useless”, or “boring” (*“Boring hippie nonsense”*) or made them think about things they didn’t want to consider (*Ignorance is bliss*). The YP may have felt there was a disconnection between the skills they were learning and the real-world, which was noted as a criticism of the programme in Pilot 2 (*Real-life connections*) and this may have led them to believe that the programme had little purpose and was therefore “boring” or “useless”. This was especially exemplified in Pilot 1, where some YP shared that they did not understand the rationale for some of the activities. This lack of clarity was remedied in Pilot 2 and conveys the benefits of piloting any intervention or universal preventative programme. Evidence shows that YP who access universal, preventative well-being programmes perceive skills as more relevant when there are increased opportunities to practice the skills learned (Bastounis et al., 2017). Thus, having skills practice transcend the confines of each programme session could therefore be advantageous and be facilitated by increased real-life connection (e.g. increasing the number of real-life scenarios in conjunction with hypothetical ones) and increased school and home engagement.

*Ignorance is bliss* demonstrates an ethical tension in which YP may have continued with involvement despite not enjoying it or being distressed by some of the associated feelings and thoughts. This may have been due to the hierarchy of power that exists in schools (i.e. adults as power figures and YP as subordinates) and the usual lack of opt-out in relation to education and lessons. It is important to note that YP were reminded that they could end participation at any time and some did discontinue their involvement.

Furthermore, some YP (Pilot 1) may have had unrealistic expectations of what the programme would do for them (*Unrealistic expectations*). This may have been due to a lack of clarity about what the programme could and could not offer and why, which was remedied for Pilot 2. For example, some YP in Pilot 1 felt that *Embrace Life* did not deal directly with mental health needs, such as depression. This may exemplify how adults/researchers can impose what they deem as valuable or beneficial on to YP without considering what support the YP believe they most require. However, a meta-aggregation

of pupil views on universal, preventative mental health approaches in school evidences that skills should be prioritised over pathology (Bastounis, Callaghan, Lykomitrou, Aubeeluck, & Michail, 2017). Thus, the skills-based nature of *Embrace Life* is in line with the research evidence. The emphasis on acceptance endeavoured to foster a new relationship with personal uncertainty to potentially reduce the likelihood of engaging in RAM, which has been shown to lead to religious, behavioural and ideological extremes (McGregor, Nash, Mann, et al., 2010; McGregor et al., 2013).

Mindfulness was a novel activity for all of the YP involved and is characterised by a very different way of orienting oneself to engage with the present moment ( "*Boring hippie nonsense*"). Adolescence is normally marked with increased risk-taking behaviours and adolescents have been found to be more likely than children and adults to be drawn into crime, substance use, reckless driving and risky sexual behaviour (Defoe, Dubas, Figner, & van Aken, 2015). Therefore, mindfulness, in its more sedate nature, may have had less appeal to adolescents. Similarly, references to "hippie nonsense" may reflect a discomfort in engaging with new experiences that may be perceived strangely or may have perceived links to otherness and/or spirituality. This may be evidenced through YP's self-consciousness about engaging in some of the mindfulness activities in the presence of others (*Self-consciousness*). Similarly, confronting hypothetical difficulties/scenarios may have roused feelings of vulnerability that led to a discomfort with the programme and may have been exacerbated by the presence of the peer group (*Ignorance is bliss*).

The whole class environment was perceived by both YP and staff (Sappho; Pilot 2) to be a challenge to engagement in the programme (*Mindful environment*) and may be connected to the self-consciousness previously discussed. It may be important to note that the Pilot 1 and Pilot 2 classes differed greatly. The YP in Pilot 1 were a mixed, boisterous class in an urban school; whereas, the YP in Pilot 2 were a well-behaved class in an all-boys suburban grammar school. Thus, in Pilot 1, behavioural issues appeared to impact on the ability for some to engage effectively in the programme content; whereas, in Pilot 2 that was less of an issue. However, Sappho (staff; Pilot 2) felt that the classroom setting was not appropriate to conduct a programme that contained mindfulness as she perceived that interruptions from other teachers/YP coming into the room may have made it difficult to focus and have roused feelings of self-consciousness. YP felt self-conscious engaging in mindfulness, being vulnerable and open about their feelings in front of their peers and wanting to give answers that would be perceived as 'correct'. This is an important concern

and could prompt future researchers and EPs to consider the optimal way of delivering universal, primary preventions to ensure that the whole-class environment does not impede learning or feelings of safety and security. When universal interventions are conducted at the whole class level, the class system, and its complexities, may always make some feel less able to be open. However, without this whole class level input, the preliminary evidence of normalising uncertainty and difficulty for some may not have been actualised in this study (*I'm normal*).

Lastly, staff felt that *Embrace Life* may have limited long-lasting impact if the programme and the associated learning were to just finish at the end of the programme (*"I don't want this programme to just stop"*). Therefore, it was deemed important to think strategically about how to move the learning on post-programme and potentially embed elements in the whole school system. As discussed in relation to Study 1, it would be important to consider the school system and its ability to promote these aims (Nilsen, 2015; Rhydderch & Gameson, 2010). Aston (2014) found that adolescents in secondary schools felt that an inclusive ethos and active listening cultures in school promote well-being in schools at the whole school level. Thus, for tolerance of personal uncertainty to be strengthened at the whole school level, consideration of the school system would be important to enable *Embrace Life* to transcend these exploratory pilot projects.

## **12.7 Research Question 8**

### **How is the YP's confidence in tolerating uncertainty affected by the programme?**

Along with the perceived benefits of *Embrace Life*, the majority of YP in the study appeared to rate their confidence more highly in response to uncertainty-inducing vignettes after engaging with the programme.

Vignettes have been used with children to gain their views about their family (Smart, 2005), long-term foster care (MacAuley, 1996), and violence amongst their peers (Barter & Renold, 2000). However, a common critique of vignettes is the potential distance between the vignette and social reality (Barter & Renold, 2000). Consequently, other data collection techniques were used to triangulate the findings (IUSC; qualitative questions; interviews). Nevertheless, increased perceptions of confidence dealing with these hypothetical scenarios could indicate that *Embrace Life* has a positive influence on strengthening tolerance of uncertainty. The findings should be interpreted with caution as extraneous variables may have influenced the increase in perceived confidence. The appropriateness of the vignette methodology will be critiqued further in Part Three.



### **13. Strengths, limitations, and direction for further study**

#### **13.1 Strengths of the Study**

- This is the first study to use RAM theory as a theoretical base to endeavour to promote resilience to radicalisation at the universal level with YP in schools.
- This is the first study to develop and implement a programme to specifically look at strengthening tolerance of personal uncertainty at the universal level with YP in schools and use measures of IU to evaluate change.
- Embrace Life was developed in collaboration with EPs who have the training, knowledge and expertise to think critically (Sewell & Hulusi, 2016) about psychological and social processes related to radicalisation, programme development and implementation.
- This study is a robust example of the use of psychological theory to inform and develop EP practice.
- The multi-layered approach to programme development and delivery (collaboration with EPs; evaluation and updating of the programme materials in response to feedback) conveys a reflective, positive change-oriented approach to the research in line with the pragmatic epistemology of the research.
- This study adds to the research literature at a number of levels: radicalisation; IU; universal approaches to promoting mental health and well-being; EP practice.

#### **13.2 Limitations of the Study**

- This is a preliminary, exploratory study with low response numbers for the online questionnaire and so findings should be interpreted with caution.
- The quasi-experimental design means that there was no random assignment of participants and no control group which also affects the validity of the findings.
- The reduced emphasis on engaging the school and home systems in supporting the programme may have limited the efficacy of the programme.
- The singular focus of Embrace Life (i.e. on personal uncertainty and resilience building) meant that other influences on radicalisation were not targeted (e.g. group dynamics; allure of highly entitative groups).

- The whole class environment may have a) led to reduced engagement and b) reduced the impact of the programme and is not in line with research that endeavours to reduce IU.
- Engagement and learning could be further improved by relating programme content more to the YP's real-life.
- In a study of perceptions of those engaging in mindfulness, participants responded more positively to mindfulness instructors who were able to authentically embody the principles of mindfulness and transmit that through the teaching (Shonin, Gordon, & Griffiths, 2014). Although the researcher had completed two courses of mindfulness and practices daily, it is a relatively new area of interest for the researcher and this may have impacted on the quality of the teaching of the mindfulness elements.
- As Embrace Life was offered at the universal level, evaluation of the programme could have included quantitative measures to evaluate the universal benefits it may have offered (e.g. re: anxiety; worry; normalising difficulty; resilience).
- The sampling method used (i.e. a convenience sample) to recruit participants in Pilot 1 and 2 meant that had the findings been significant they could not have been generalised to the general population of Year 8s.
- Lastly, although the questionnaire was conducted anonymously online and the evaluative semi-structured interviews were carried out by another EP and an assistant EP, the researcher was involved in the programme development, implementation, evaluation and write-up. Thus, this could lead to bias in the interpretation of the results and is discussed further in Part Three of the thesis.

### **13.3 Directions for Further Study**

- Future research should endeavour to upgrade the programme materials in response to the feedback from Pilot 2 and address the limitations listed above. For example, it would be interesting to conduct training sessions with parents and teachers in conjunction with the delivery of Embrace Life, similar to the parental focus in reducing adolescent IU in Rodgers et al. (2017) and incorporate awareness building regarding the allure of highly entitative groups during times of uncertainty (Hogg, 2012).

- It would be compelling to deliver Embrace Life in smaller groups still at the universal level; this could be facilitated by having teachers trained in its delivery.
- It may be helpful to adapt the materials for the needs of each group of YP with school staff that understand the needs of the group, or alternatively with the YP themselves. An extra session in which the students create scenarios inspired by their own lives may have more relevance than ones created by an adult.
- Lastly, conducting the literature review has revealed intolerance of uncertainty therapy (IUT) (van der Heiden et al., 2012) which could be consulted to make Embrace Life more rigorous as IUT has been found to reduce IU in adults with Generalised Anxiety Disorder (van der Heiden et al., 2012). IUT focuses on worry orientation, like Covey's circles of concern and influence (Covey, 2004). Covey's work endeavours to help people to shift focus on those concerns that can be influenced as often worry can be orientated towards that which is out of one's control (Covey, 2004). This would also connect with CCT (Kay & Eibach, 2013).

#### **14. Implications for Educational Psychologists**

The role of the EP tends to operate across the following domains: assessment, intervention, training, consultation, research, and policy development (Scottish Executive, 2002) to enhance the lives of children and YP. Across these domains, early preventative work is deemed highly important (Health and Care Professions Council (HCPC), 2015). However, EPs are working in challenging times financially (Randall, Turner & McLafferty, 2015). There is an expectation of high-quality outcomes and service delivery from all educational services despite fewer resources and less time due to austerity (Randall, Turner & McLafferty, 2015). Thus, this study conveys how EP time can be utilised to collaborate and pool resources together to use psychology to enact change through universal, preventative work. EPs are practitioner psychologists and it is important that they have opportunities to use psychology to inform and support emerging societal issues that affect children and YP (e.g. radicalisation). In this case, six LA EPSs have inputted into endeavours to promote resilience to radicalisation. This has the potential to enhance the practice of the EPs involved as well as providing benefits to the YP who accessed *Embrace Life*. The debate regarding universal versus targeted intervention is a key factor that EPs need to consider when working with contentious issues, such as radicalisation and it

is through engaging in research that EP understanding is enhanced to aid efficacious practice. Furthermore, the systemic limitations of this study may actually be beneficial for EPs. For example, few EPs may be able to offer intensive group-based intervention, such as *Embrace Life*, and thus, the training of staff to deliver a programme to promote resilience to radicalisation may be both more feasible and more efficacious in the long-term. In this way, principles/approaches are more likely embedded in the system and this could foster more long-lasting change (Nilsen, 2015).

## **15. Conclusion**

This study has endeavoured to promote resilience to radicalisation using RAM theory as a theoretical base. Thus, a programme was developed to strengthen tolerance of personal uncertainty in collaboration with EPs. Following this, the programme was piloted twice at the universal level in two secondary schools and consequently evaluated. There were no significant differences in IU amongst the YP who engaged with the programme. However, the qualitative findings reveal key benefits for the YP involved including perceptions of increased psychological flexibility, reflectiveness, acceptance, and assertiveness. Furthermore, the universal approach facilitated the normalisation of uncertainty and other difficulties for some. This could have benefits for promoting resilience to radicalisation. The key challenges that were perceived are ones that could be remedied and include: increased engagement with school and home systems; conducting the programme in smaller groups to reduce self-consciousness and increase engagement; and the upgrading of the programme content to include more real-life connections.

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### **Part Three Major Research Reflective Account**

**Total words: 7000**

## **1. Introduction**

This reflective account provides a valuable opportunity to reflect critically on the research conducted. Reflective and reflexive thinking is a core part of this process and ensures that the research is thoroughly evaluated to enhance further research endeavours and develop professional practice. This account is divided into two parts: a reflection on the research's contribution to knowledge and a reflection on the journey of the researcher practitioner.

## **2. Part A: Contribution to Knowledge**

This section explores how the research study has contributed to knowledge in the field of radicalisation, uncertainty, and universal resilience and well-being, and outlines the implications for EPs, YP and schools. Directions for future research and potential ideas for the dissemination of findings will be shared. The contribution to my professional practice will be presented and reflected on critically.

### **2.1 Contribution to the literature**

#### **2.1.1 Radicalisation**

There is currently only one article that explores the EP role in relation to radicalisation and is presented in the form of a position paper that advocates considering radicalisation from the perspective of reactive approach motivation (RAM) theory (Sewell & Hulusi, 2016). The current study provides the first example of moving beyond the experimental research of McGregor et al. that has consistently shown links between personal uncertainty and increased tendencies towards ideological, behavioural and religious extremes (e.g. McGregor, Prentice, & Nash, 2013). In line with the pragmatist epistemology, the study endeavoured to explore if RAM theory could be useful in promoting resilience to radicalisation and the findings brought up key issues that are noteworthy.

Psychological models and frameworks commonly used in EP practice emphasise the importance of considering the complexity of an issue through the support of a psychological framework (Woolfson, Kelly, Woolfson, & Boyle, 2017). In this way, varying theoretical perspectives can be acknowledged and actions can be reasoned and informed. In endeavouring to promote resilience to radicalisation, the constructionist model of informed reasoned action (COMOIRA) (Rhydderch & Gameson, 2010) is a change-oriented framework that would consider a number of elements, including systemic factors (e.g. the cultural and social context) and varying theoretical orientations that may impact on positive change in this realm. Similarly, the interactive factors framework (IFF; Morton & Frith, 1995) is a causal model which would consider how biological, cognitive and environmental factors interact to result in radicalisation.

Consequently, it is not surprising that the findings from Study 1 revealed key criticisms of RAM theory from EPs (Appendix TT). Some felt that developing a study on the basis of one theoretical perspective and engaging at one level systemically (i.e. the whole class level) could reduce the potential impact on promoting resilience to radicalisation amongst the YP involved due to its potentially reductionist approach. Accordingly, it may be that selecting a theoretical viewpoint limited the scope and efficacy of the research. An alternative could have been to elicit EP views about how to promote resilience to radicalisation and then, use these views in conjunction with the research literature to devise a programme. However, while this may have had pragmatic benefits, it may not have led to an understanding of the relevance of RAM theory to radicalisation prevention, which is a key strength of the research.

Radicalisation is undoubtedly a complex phenomenon and there is much research dedicated to unravelling the processes by which an individual may become radicalised (e.g. McGilloway, Ghosh, & Bhui, 2015). However, a limited number of research studies discuss what can actually be done to prevent radicalisation at the universal, preventative level (Ghosh, Chan, Manuel, & Dilimulati, 2017). Adhering to the pragmatic epistemology of the research, tackling tolerance of personal uncertainty was deemed a potentially simple solution underpinned by the experimental evidence of RAM theory (McGregor et al., 2013) and other research linking uncertainty to extremism (Hogg, Kruglanski, & van den Bos, 2013). This aligns with the solution-focused work of De Shazer (1985) which posits that a complex problem, such as radicalisation, does not always necessitate a complex solution. Thus, this study contributes to the research literature by exploring the feasibility and impact of work around personal uncertainty on promoting resilience to radicalisation.

Intolerance of uncertainty (IU), as measured by the IUSC, was not significantly impacted when the programme was targeted at the universal level and thus, this may illuminate the difficulties inherent with using quantitative measures to measure the impact of universal approaches in which there will naturally be variability in IU amongst the sample (See Part B for further discussion on methodological choices). This contrasts with the reduction of extremist views as a result of targeted resiliency training for Muslim adolescents at risk of radicalisation (Feddes, Mann, & Doosje, 2015). However, the qualitative analysis shows preliminary evidence that for some YP tackling personal uncertainty using the

principles of *Embrace Life* promoted reflective thinking, psychological flexibility and the normalising of difficulty. This may show the potential benefits of using whole-class resiliency training with a personal uncertainty focus in promoting resilience to radicalisation. However, these preliminary findings need to be interpreted with caution due to the small-scale nature of the study and because YP's comments about benefits (or challenges) may not accurately reflect their experience. The study also contributes to the radicalisation research by identifying key barriers to implementing a programme like *Embrace Life* at the universal, whole class level and provides clear avenues for future research, which will be discussed later.

### 2.1.2 Uncertainty

This study contributes to the research literature on uncertainty. IU can be defined as negatively perceiving and responding to uncertainty-inducing information which can lead to avoidance (Ladouceur, Gosselin, & Dugas, 2000). Meta-analyses of the research has found that IU is known to be a transdiagnostic factor associated with anxiety, depression and obsessive-compulsive disorder (OCD) in adults (Gentes & Ruscio, 2011) and associated with anxiety and worry in YP (Osmanagaoglu, Creswell, & Dodd, 2018). Targeting IU has been found to reduce symptoms of Generalised Anxiety Disorder (GAD) (Dugas et al., 2003; van der Heiden, Muris, & van der Molen, 2012) and social phobia (Mahoney & McEvoy, 2012) in adults. The majority of programmes focusing on IU reduction have involved a targeted approach, with adults with mental health difficulties (Dugas et al., 2003; Mahoney & McEvoy, 2012; van der Heiden et al., 2012). Thus, this study contributes to the research by a) devising a programme for YP that encompasses an acceptance and commitment therapy (ACT) based approach and endeavours to promote tolerance of personal uncertainty and b) implementing that programme in a universal, preventative way. Although the programme was found to have no significant effect on IU, the perceived benefits from the programme indicate preliminary evidence that YP perceived that they were helped to consider altered relationships with uncertainty that may be useful in beginning to reduce IU in the long-term (*Strengthening 'Snowflakes'; Accept & tackle; Skilled up and ready; I'm normal; New perspectives*). For example, the programme promoted acceptance and confronting uncertainty-related difficulties with assertiveness rather than avoidance or engaging in RAM (i.e. the pursuit of unrelated goals with fervour to dampen uncertainty and consequent anxiety). Furthermore, the universal, preventative approach of Embrace Life may have helped YP to develop their resilience generally and/or manage anxiety, although this was not the primary goal. Similarly, tackling personal uncertainty may have helped YP in the study to think more flexibly about issues in their own life (*New perspectives*). This may be helpful in introducing future uncertainty-related research to schools, as the associated potential benefits could entice schools to engage with universal preventative programmes, such as Embrace Life. However, it is important that the limitations of the study are rectified to further explore the relevance and suitability of *Embrace Life* in reducing IU. (See Part 2, Section 13.2).



### 2.1.3 Universal resilience and well-being

This study also adds to the literature on universal approaches to promote resilience and well-being. This was achieved through the implementation and delivery of *Embrace Life* to YP, a programme which was developed by EPs and embodies an ACT-based approach (Swain, Hancock, Dixon, & Bowman, 2015). Generally, targeted interventions to promote well-being that are led by health professionals have larger effect sizes than universal approaches (Stice, Shaw, Bohon, Marti, & Rohde, 2009; Teubert & Pinquart, 2011) and thus, well-being interventions in schools can tend towards targeting those that ‘need it most’ (Bastounis, Callaghan, Lykomitrou, Aubeeluck, & Michail, 2017b). This study provides early positive indications for the benefits of a universal approach to therapeutic intervention. For example, the study showed that there was variation in YP’s IU, meaning that some YP within these pilots were struggling to tolerate uncertainty. However, the perceived benefits of *Embrace Life* may have promoted the resilience and well-being of all YP involved, including those that may have been more vulnerable (*Strengthening ‘Snowflakes’; Accept & tackle; Skilled up and ready; I’m normal; New perspectives; Relationships and behaviour*).

It is important to note that universal resilience-based approaches already exist in schools (e.g. *Friends for Life (FfL)* resilience programme (Barrett, 2004, 2005); Penn Resiliency Programme (PRP; Gillham, Brunwasser, & Freres, 2008) on which UKRP was based (Bonnell et al., 2011). However, *FfL* is the only programme that has been evidenced to promote significant outcomes related to anxiety at the universal level (Essau, Conradt, Sasagawa, & Ollendick, 2012; Higgins & O’Sullivan, 2015; Ruttledge et al., 2016). A meta-analysis of PRP studies found that PRP could not be recommended for universal implementation (Bastounis, Callaghan, Lykomitrou, Aubeeluck, & Michail, 2017a) and, interestingly, Bastounis et al. (2017a) suggest that PRP programme effectiveness could be improved by targeting interpersonal factors that are grounded in commonly experienced stressors. This could link to Aristotle’s views that *Embrace Life* could benefit from more connection to the YP’s real lives (*Real-life connections*) and thus adds potential support for views that already exist in the research about similar projects. This will be further discussed in ‘contribution to future research’.

## **2.2 Contribution to EP Practice**

EPs are applied, practitioner psychologists who use psychological theory and research to promote positive outcomes for children and YP (Scottish Executive Education Department (SEED), 2002). Research is a core facet of the EP role and EPs are fortunate to be well placed to engage with LA, school, and home systems (Fallon, Woods, & Rooney, 2010). In this way, they can use this research to enhance professional practice and stimulate positive change.

This study proposes that the research provides a time-efficient model by which EPs can engage in research and also engage in continuing professional development (CPD) through collaboration with other EPs. For example, a programme that drew upon the expertise and skills of six EPs was facilitated by minimal EP input (e.g. two sessions). The Health Care and Professions Council (HCPC; 2015) require that EPs participate in CPD that benefits service users (i.e. YP, schools, parents, communities) and is relevant to and enhances professional EP practice (HCPC, 2015). This study has provided some evidence of how time-efficient CPD can be arranged to enhance EP practice and service delivery while promoting cross-authority working and psychological research. For example, the world café method (WCM) and nominal group technique (NGT) were used to share and critique RAM theory in relation to radicalisation and to develop the core components of a programme aimed at promoting resilience to radicalisation. EPs shared that engaging in the study illuminated the potential link between uncertainty and radicalisation that they had not considered before (Appendix TT).

Furthermore, this study provides an example of how EPs knowledge, skills and experience can be utilised to apply psychology to promoting change in the realm of radicalisation. However, there was a low engagement rate from EPs; only six EPs participated out of the five services contacted. This may have been due to a lack of interest in the topic or due to pressures associated with the role (e.g. workload; time; other commitments). Nevertheless, there are implications for PEPs to promote engagement in CPD that may prove fruitful to professional practice and service delivery, despite, and perhaps because of, reduced funding and resources in LA services (Randall, Turner & McLafferty, 2015)

### **2.3 Contribution to Young People and Schools**

This study has exemplified how a focus on resiliency can benefit YP and schools and how there are YP who have difficulties coping with uncertainty and related issues assertively and independently (*Strengthening 'Snowflakes'*). Some of the YP involved spoke of increased psychological flexibility through a consideration of other perspectives (*New perspectives*). This psychological flexibility and ability to reflect could have benefits outside the realm of well-being for both YP and schools. For example, YP are expected to become reflective learners and evaluate learning processes, which involves meta-cognitive strategies or 'thinking about thinking' (van Velzen, 2017). Implementing programmes like *Embrace Life* to help YP manage personal uncertainty and related difficulties can benefit YP's wellbeing and may also benefit their learning via a promotion of meta-cognitive skills, which could influence school-based academic outcomes. The exploratory nature of this study did not allow for the evaluation of academic change because the primary focus was to ascertain the impact on uncertainty via the IUSC, although this could be an area for future study.

## 2.4 Contribution to Future Research

Promoting resilience to radicalisation in YP via a focusing on strengthening tolerance of personal uncertainty in YP is a burgeoning field. In this study, the desire to collaborate with EPs and co-construct the core components of the programme by using the lens of RAM theory exclusively may have limited the potential of the programme. However, it has led to an understanding that universal ACT-like approaches, that target tolerance of personal uncertainty, can promote acceptance, psychological flexibility and assertiveness in some YP and therefore, may have benefits for YP and schools. Further research could endeavour to use other theoretical perspectives to consider personal uncertainty in the wider social, cultural and political context. For example, the inclusion of social theories related to radicalisation, especially those that relate to uncertainty (e.g. uncertainty identity theory) (Hogg, 2007) and the consideration of intolerance of uncertainty therapy (IUT) (van der Heiden et al., 2012) in enhancing *Embrace Life*.

Furthermore, it may be beneficial to draw on successful universal approaches to resilience training (e.g. FfL (Barrett, 2004, 2005)) to remedy some of the perceived challenges (e.g. “*I don’t want this programme to just stop*”). For example, Rutledge et al. (2016) implemented *Ffl* at the universal whole school level and the programme was delivered by teachers. This was perceived by staff to enhance the learning as the *Ffl* language could be used throughout the day allowing the learning to transcend the individual *Ffl* session. Furthermore, a key part of *Ffl* involves parental sessions (Barrett, 2004, 2005). Consequently, future research could endeavour to include these elements to enhance the programme’s effectiveness. Additionally, it may be that delivering a generic programme that is not tailored specifically to the interests, needs and real-life issues of the YP involved may have less relevance and may affect engagement (*Real-life connections; “Boring, hippie nonsense”*). Thus, pre-work to elicit what real life uncertainty-inducing issues are affecting the YP involved could be useful in adapting the programme for each group of YP and would place value on the voice of the YP involved, whilst still staying true to the structure of the programme (*Treated like young adults*).

## 2.5 Plans for the Dissemination of Findings

Dissemination is an integral part of the research process as it ensures that the research is purposeful and serves to enhance outcomes. However, Newman and Vash (1994) posit that the possession of knowledge does not guarantee it will be utilised. Therefore, it is important to strategically plan for dissemination. Furthermore, Huberman (1993) makes the distinction between the conceptual and instrumental use of knowledge (i.e. effective dissemination can either influence knowledge, attitudes and beliefs or it can stimulate behavioural change, respectively). There are five key audiences for this research and Table 36 below indicates how the findings can be disseminated to these audiences and which type of dissemination is being prioritised.

Table 32 *Plans for the Dissemination of Research Findings*

Key Audience	Dissemination Plan
Participating schools	<p>I have planned to meet with both pilot schools to discuss the findings and reflect on the next steps for the ‘Embrace Life’ programme in the schools.</p> <p><b>Instrumental:</b> With the research findings as a base, school staff may be able to incorporate elements of the programme into how they approach well-being in school or potentially run the programme again, under supervision of the EPS.</p>
Academic institutions	<p>The final thesis will be available on an online system of accessing theses.</p> <p>I have plans to adapt the thesis for submission to <i>Educational Psychology in Practice</i> and to offer to share my research at the Association for Educational Psychologists (AEP) annual conference, which is on ethics and inclusion.</p>
Educational psychology services (EPSs) and psychologist communities	

	<p>From September 2019, I will be working in a thriving, inner-city EPS. This EPS conducts work on anti-extremism and I have arranged to share my work and collaborate with other EPs to hopefully continue the journey to promoting resilience to radicalisation in YP.</p> <p><b>Conceptual:</b> As occurred in Study 1, EPs may be interested to see the potential link between uncertainty and radicalisation. Furthermore, the theoretical overview provided may stimulate new avenues of research.</p> <p><b>Instrumental:</b> This dissemination may stimulate EPs to use universal, resilience-based approaches to promote resilience to radicalisation.</p>
Local authority, government and relevant organisations (e.g. Prevent; Quilliam, a counter-extremism organisation; Welsh Government)	<p>I have also contacted the community co-ordinator for counter extremism in Wales to share the findings of the research and a meeting has been set up to discuss how the findings can be used in relation to radicalisation. This could result in further adaptations of the programme and/or approach and further preliminary investigation.</p> <p><i>Prevent</i> will also be contacted and the poster that is developed to summarise the research as part of the doctorate could be shared.</p> <p><b>Conceptual:</b> This could prime thinking around targeted vs. universal approaches, especially in light of the new review to be conducted on <i>Prevent</i> ('The</p>

	<p>latest Prevent figures show why the strategy needs an independent review', 2017).</p> <p><b>Instrumental:</b> The move towards universal approaches that focus on the psychological underpinning of radicalisation could boost the public image of counter-extremist agendas and organizations, like <i>Prevent</i>.</p>
Schools, parents/carers and YP	I will disseminate the findings in my professional practice and this is discussed further in the next section.

## **2.6 Contribution to Professional Practice**

The role of the EP tends to operate across the following domains: assessment, intervention, training, consultation, research, and policy development (SEED, 2002). However, there is an expectation on EPs to provide high-quality, innovate service delivery despite reduced resources and increased workloads (Randall, Turner & McLafferty, 2015). Therefore, I believe that it can become easy to operate within a restricted professional capacity that may hinder professional development. Despite the long and, at times, arduous journey of developing this study, I feel that it has increased my confidence as a researcher and allowed me to develop knowledge and competence in an area that I did not have before. Thus, I feel EPs engaging in research is hugely beneficial and I will continue to explore this realm once qualified. Embarking on this study has already impacted my professional practice as a trainee EP. For example, I can see how uncertainty-related difficulty can manifest in avoidance and increased anxiety and stress, and this has helped me work better with YP with ASD for whom tolerating uncertainty is a common difficulty (Rodgers et al., 2017), and in supporting parents, YP and colleagues in times of uncertainty (e.g. re: transition; outcomes of statutory processes; systemic changes in local authority). Similarly, I have become more self-aware of my own tendency to engage in more rigid thinking in times of uncertainty and how approaches like acceptance and mindfulness can help to promote more flexible, creative and open-minded thinking that may facilitate more positive outcomes and ensure that I continue to grow as reflective psychologist practitioner.



### **3. Part B: Critical Account of the Research Practitioner**

This section explores the following parts of the research process: the rationale for the thesis; methodological considerations; the literature review; ethical considerations; design and procedure; recruiting participants; data collection; data analysis and interpretation; and the contribution to the professional practice of the researcher. The strengths, limitations and any difficulties encountered will be discussed throughout the critical account.

#### **3.1 Rationale for the Thesis**

##### **3.1.1 Inspiration for the thesis**

During my undergraduate psychology degree, I was always captivated by forensic psychology and how it sought to unravel the complexities of the darker sides of human behaviour which might lead an individual to engage in atrocious crimes. Nonetheless I chose to engage with educational psychology as I was drawn to the proactive, change-focused and preventative nature of the role. The thesis appears to be an amalgamation of my initial fascination with forensic psychology and my connection to the values that I believe underpin the role of the EP.

The spate of terror attacks afflicting countries in the west and the psychological distress that they left in their wake instilled a moral outrage within me. This outrage was directed towards those that committed the atrocities but also towards the injustice, discrimination and relative deprivation that individuals experience in society that may also influence their engagement with terrorism. However, it was the Manchester Arena terror attack in May 2017, which resulted in the death and harm of YP specifically, that motivated me to endeavour to channel these feelings constructively into using psychology, and my role as a trainee EP, to possibly contribute towards preventing radicalisation. As a practitioner psychologist, I am aware of the British Psychological Society's Code of Ethics and Conduct (BPS; 2018) and understand the importance of the core value of respect and how all people should be treated with compassionate care, empathy and generosity. Terrorism is an unsettling and emotion-provoking act and I felt it important that I acknowledge and accept the emotions felt in response to the above attacks whilst also moving towards

developing further understanding of individuals who may commit such acts of violence and helping in some way, which is in line with my values. I feel that this genuine curiosity shaped the thesis trajectory and has helped me to consider my own emotional responses to events. It has taught me that keeping ethics at the core of my practice and seeking supervision can be a positive anchor when faced with difficult issues or topics.

### **3.1.2 Initial literature search**

Firstly, I wanted to understand if there was a role for EPs in preventing radicalisation and my initial literature search led to only one article that specifically explored the EP role in this realm. Sewell and Hulusi's article (2016) on preventing radicalisation to extreme positions in children and young people (YP) posited that the knowledge, competencies and training of EPs meant they were well placed to help in this regard. Furthermore, they suggested considering radicalisation from the perspective of reactive approach motivation (RAM) theory (McGregor, Nash, Mann, & Phills, 2010; McGregor et al., 2013) and how EPs conducting work to help YP cope better with personal uncertainty may warrant exploration in relation to the process of radicalisation (Sewell & Hulusi, 2016). I was instantly fascinated by RAM theory and felt that it could be interesting to explore its relevance to radicalisation further. This led me to the myriad of experimental research regarding RAM theory and how personal uncertainty could lead to religious, behavioural and ideological extremes (McGregor, Nash, & Prentice, 2010; McGregor et al., 2013). Furthermore, the work linking uncertainty and extremism (Hogg et al., 2013) reassured me that tackling uncertainty could be a useful starting point.

### **3.1.3 Idea refinement**

From the outset, I grappled with my ontological and epistemological stance as I did not want to simply accept RAM theory as a possible truth. Instead, I wanted to talk with YP who may have been deemed more vulnerable to radicalisation or who had had experience of it in some way and elicit from them their constructs about what could be useful in building resilience to radicalisation. In this way, I could develop a programme/approach built from the voices of people that radicalisation affects/could affect. However, the following ethical and methodological issues prevented my engagement with this approach:

- Access to individuals vulnerable to radicalisation: The General Data Protection Regulation (GDPR; European Parliament & Council of the European Union, 2016)

would mean accessing YP who are receiving intervention from *Channel* may have been difficult. Furthermore, this idea may have aligned with a targeted approach which is posited to increase marginalisation in communities (Sklad & Park, 2017).

- Sensitive and emotive topic being raised with YP: It was important to consider how the YP I would work with would deal with the topics raised and what would be the plan to support them post-research.
- It may have been difficult to get parental/carers and/or school consent to discuss the topic of radicalisation.

Consequently, I considered working with adults who had been previously been radicalised or been involved with radicalisation instead of working with YP. From there, I considered extracting themes from the views shared and working with a group of EPs to develop a programme/approach to build resilience radicalisation in schools, followed by the implementation and evaluation of the programme. In talks with my research supervisor and other colleagues, it was decided that this would be overly ambitious for a doctoral thesis and that access to these adults may have proven difficult. Furthermore, the adults' views may not have provided useful ways forward that would have aligned with the actual research on radicalisation, reducing the evidence-based applicability of the results.

Eventually, it was decided to use RAM as a theoretical base to explore radicalisation, collaborate with EPs to co-construct an approach/programme to build resilience to radicalisation, and implement and evaluate the programme with YP. This will be discussed further in the following section.

## 3.2 Methodological Considerations

### 3.2.1 The relationship between the research paradigm and methodological design

Research paradigms have varying definitions and have been described as representing a world view; an epistemological position; shared beliefs and procedures that guide a particular field; or as exemplar models of how research should be conducted in a given field (Morgan, 2007). Careful consideration of the research paradigm and how it connects to the methodological design employed will be discussed. Examples of paradigms include: postpositivism; constructivism; pragmatism; and transformative (Hall, 2013); relevant paradigms to this research study are illuminated through discussions of epistemology below and in the following subsections.

Integral to the research journey was grappling with the concepts of ontology and epistemology, which appeared quite complicated. Ontology refers to the nature of reality/being and exists on a scale between realism and relativism (Braun & Clarke, 2013). Within realism, reality is perceived as universal and existing independent of human interpretation. Whereas, in relativism, reality is constructed as entirely dependent on human interpretation and knowledge, and reality can therefore vary across time and context (Braun & Clarke, 2013).

Epistemology is concerned with the nature of knowledge, beliefs and truths and determines what types of knowledge are deemed useful, meaningful and legitimate (Braun & Clarke, 2013). Epistemological stances range on a scale from positivism to constructionism (Braun & Clarke, 2013). Positivism posits that real truth is possible to obtain and is *discovered* through the research methodology (Braun & Clarke, 2013). Conversely, constructionism posits that it is not possible to obtain an objective truth as knowledge is subject to varying interpretations and so knowledge is not *discovered* but *created* as part of the research process (Braun & Clarke, 2013).

The following subsections consider the relationship between qualitative and quantitative approaches and the different ontological and epistemological stances. The research paradigm employed in the current study is then discussed.

### **3.2.2 Quantitative, qualitative & mixed methodological approaches to research**

Historically, research methods tended towards either quantitative or qualitative methods (Makrakis & Kostoulas-Makrakis, 2016; Morgan, 2007). Generally, quantitative methods align themselves with a positivist epistemology which contain value-free predictions and prioritise the quest for objective truth through measurement, hypothesis testing, and a desire to define causality and allow for the generalisation of findings (Braun & Clarke, 2013; Makrakis & Kostoulas-Makrakis, 2016). Conversely, qualitative methods align themselves with a constructionist and interpretivist epistemology which views knowledge as being constructed during the research process, being value-laden and subject to interpretation (Braun & Clarke, 2013; Makrakis & Kostoulas-Makrakis, 2016).

A third methodological movement has emerged which combines quantitative and qualitative research and is classified as mixed methods (Johnson & Onwuegbuzie, 2004). This was the methodology adopted for this study as both quantitative (Intolerance of Uncertainty Scale (IUSC)) and qualitative (world café method; open-ended questions in the online questionnaire; semi-structured interviews) measures were used. Importantly, in Study 1 only qualitative methods were used; whereas in Study 2 both quantitative and qualitative methods were used.

In Study 2, the quantitative and qualitative data were collected simultaneously and the data were then merged to explore the research questions. Within mixed method research, this is defined as a convergent study design (Carayon et al., 2015; Plano Clark, 2019).

### 3.2.3 Ontology, epistemology & mixed methods research

The *incompatibility thesis* creates a distinct dichotomy between quantitative and qualitative research (Johnson & Onwuegbuzie, 2004). It maintains that these two research approaches, and any associated methods, cannot be mixed as the epistemological and ontological positions that underpin them are in direct contrast (Johnson & Onwuegbuzie, 2004). For example, in this study, utilising a standardised measure of intolerance of uncertainty via the IUSC (Comer et al., 2009) defines a complex variable using a numerical value on a Likert Scale. Furthermore, this value is independent of context and therefore may exemplify a realist ontology and a positivist epistemological stance (Braun & Clarke, 2013). In contrast, the analysis of the qualitative data (world café method; open-ended questions in the questionnaire; & semi-structured interviews) may exemplify a relativist ontology and constructionist epistemology, by acknowledging the individual interpretations of RAM theory and the *Embrace Life* programme, in Study 1 and Study 2 respectively (Braun & Clarke, 2013). Accordingly, those adhering to the incompatibility thesis would posit that the two methods employed in the study cannot be utilised together because of their conflicting underpinning assumptions about reality and knowledge (Johnson & Onwuegbuzie, 2004).

The incompatibility thesis has been challenged (Maxwell & Mittapalli, 2010). For example, radicalisation and uncertainty are complex phenomena, and burgeoning evidence suggests that adopting a mixed methods approach can add further depth and breadth to contending with these types of complexities in social and psychological research (Carayon et al., 2015; McCrudden, Marchand, & Schutz, 2019). Quantitative and qualitative methodologies have different strengths and limitations and thus, conclusions can be arrived at that may not be possible using a singular method (Maxwell & Mittapalli, 2010). Nevertheless, Makrakis and Kostoulas-Makrakis (2016) posit that when utilising a mixed methodology, it still remains important to explicitly reflect on the research study's paradigmatic and epistemological orientation.

When reflecting on research paradigms, Hall (2013) explains that there are three possible paradigmatic positions within mixed-methods research: a-paradigmatic; a multi paradigm approach; and a single paradigm approach.

The a-paradigmatic stance posits that methodology is and can be independent of the epistemology that gave rise to it (Hall, 2013; Patton, 1990; Teddlie & Tashakkori, 2009). However, Hall (2013) maintains that at the point of interpretation epistemological assumptions become clear, and thus research cannot be a-paradigmatic. For example, a constructivist may ask their participants to complete a survey; however, they would be more likely to conduct a qualitative analysis on the data to understand interpretations of reality rather than a multiple regression analysis to obtain more objective, less context-driven data (Hall, 2013). This reflects how they view knowledge and where they assign value.

The multiple paradigm approach claims that more than one paradigm can be utilised in one research study and that these paradigms can co-exist simultaneously (Hall, 2013). This may be easier to claim than reconcile, as this approach does not explain how contradictory ontological and epistemological positions can be integrated (e.g. positivist and constructionist epistemologies; Hall, 2013).

Finally, the single paradigm approach allows for a single paradigm to include both qualitative and quantitative methodologies as it believes that they can share an underlying ontological and epistemological orientation (Hall, 2013). Pragmatism is a popular example of a single paradigm approach and prioritises whatever method is best in solving a particular problem or issue (Hall, 2013; Morgan, 2014). Pragmatism is less interested in the nature of reality or knowledge, acknowledging that reality is constantly changing, subject to debate and interpretation (Hall, 2013; Morgan, 2014). Thus, pragmatism directs its efforts into acquiring knowledge that is useful and practical in achieving the study's aims (i.e. contributing to preventing radicalisation) and it was this practicality that particularly resonated with me. However, I would challenge the view that the researcher's ontological position is less important in a pragmatic approach. As outlined in Part Two, I feel that one's ontological position does impact the way the pragmatic approach may be shaped. Ontologically, I adopted a critical realist stance and this is reflected in how I constructed the research. For example, I acknowledged that there was truth to be found (i.e. a way of promoting resilience to radicalisation), but that there may be varying interpretations of that truth. This led me to seek and value the subjective interpretations of RAM theory and *Embrace Life*, while endeavouring to understand if the programme influenced IUSC scores (i.e. seeking truth).

Copious amounts of research has been done on the processes of radicalisation (Borum, 2011; King & Taylor, 2011; McCauley & Moskalenko, 2017; McGilloway et al., 2015), and the ethical constraints surrounding my previous ideas led me to delve less into the subjective interpretations of ‘radicalisation’. Instead, I was drawn to pragmatism and the more practical question: What can be done to help prevent radicalisation? This is line with the central principle of pragmatism: inquiry (Morgan, 2014). Inquiry is the process in which beliefs that are deemed problematic (i.e. extreme radical thought) are resolved through action (i.e. implementing processes of change/intervention; Morgan, 2014).

My original thesis idea was to construct a programme to prevent radicalisation with individuals with whom radicalisation affected. This would have been achieved, unguided by any theoretical position (i.e. RAM theory), and through eliciting participant views. This would have led me to use different methodologies (e.g. a focus group approach to glean views around radicalisation prevention) with potentially different epistemological assumptions. In this instance, the methodologies used to construct the programme would have aligned more with a constructionist epistemology, acknowledging that the process of radicalisation may be interpreted by people in different ways. Conversely, the current study accepted that the use of RAM theory could be a practical way forward and this was used to potentially contribute to resolving the societal issue of radicalisation, aligning with a pragmatic approach. Thus, the experience of creating this research study has helped me to understand how a bi-directional influence exists between epistemology and ontology, and methodology.



### 3.2.4 The value of mixed method approaches

In the current study, the mixed method approach was valuable and useful as it added breadth and depth to the findings. *Embrace Life* did not have a significant effect on IU as measured by the IUSC (Comer et al., 2009). In the absence of qualitative data, these findings would have told very little about the potential effects of the programme on other factors outside of IU as defined by the IUSC (Carayon et al., 2015). Even if other quantitative measures were employed, the qualitative data elicited from EPs, YP and staff assists the potential future implementation of a programme like *Embrace Life* in ways that a quantitative score alone cannot. For example, it illuminated potential barriers to engagement (*Mindful environment; Self-consciousness; Ignorance is bliss*) and these barriers can be dealt with in future research, if deemed appropriate. Thus, mixed methods provide a great opportunity for the triangulation of findings, employing numerous methods in an attempt to get closer to the real ‘truth’ of a situation (Braun & Clarke, 2013). In line with the pragmatist paradigm, the use of mixed methods brought the research closer to understanding if and how *Embrace Life* could be useful to YP in relation to radicalisation and in relation to well-being generally.

### 3.3 The Literature Review

The rigour of the narrative literature review was supported by a Literature Review Scoring Rubric (Appendix A) (Mertens, 2015) and the review scores highly across most areas. However, there are some key areas that would benefit from a more thorough examination and critique:

- The history of radicalisation;
- Research methodologies used in the literature.

The review did not deal with these areas thoroughly due to the ambitious aims of the literature review and the limitations of the word count. Furthermore, the review did not offer new research methodologies to explore radicalisation prevention explicitly. However, the overall thesis may stimulate thoughts about new methodologies. The review invests time in critiquing the theoretical perspectives underpinning radicalisation. Before engaging in prevention, it was important to understand the complexities of radicalisation. I believe that this provides a solid, psychologically informed foundation for the research and the review successfully links the theory with the prevention research evidence.

My practice as a trainee EP is grounded in an ecological systems perspective (Bronfenbrenner, 1979), emphasising a consideration for how various systems (e.g. home, school, peers, local authority, culture) interact and have a concurrent influence on how YP may engage with the world. However, in line with the pragmatist paradigm, a potentially simple resolution to the complex problem of radicalisation was considered by focusing on strengthening tolerance of uncertainty in order to potentially influence how YP interact with various systems and ecological influences relevant to radicalisation.

Following a brief overview of the research literature and the recommendations of Sewell & Hulusi (2016), I was curious to explore radicalisation from a psychological perspective, focusing on RAM theory (McGregor et al., 2013). Therefore, this influenced how the literature review was structured. For example, commonalities between the theoretical perspectives and RAM theory were illuminated (e.g. the role of uncertainty in compensatory control theory (CCT) & UIT). Without the influence of RAM theory, the literature review may have been structured differently and different research questions generated. This may have offered a potentially more holistic perspective to the programme development.

When conducting my in-depth literature review, I was fascinated by the social theories, such as uncertainty identity theory (UIT) (Hogg, 2007). I began to realise that the use of RAM theory as a theoretical base may have limited the information presented to EPs and resulted in the development of a programme that lacked inclusion of other theoretical perspectives. Consequently, some EPs in Study 1 critiqued the exclusive use of RAM theory as a theoretical base to develop the programme. Work related to group dynamics and UIT was not included in the programme because these perspectives were less emphasised during discussion and/or were not voted for during the NGT. Only one EP suggested an idea that appeared related to the social influences on radicalisation: work on in-groups, out-groups, & stereotyping (Appendix UU). However, this idea was not voted for. This may have been because, having not read the literature around UIT, the EPs and I may have been less able to relate uncertainty to the tendency towards group structures that can be associated with extremism (e.g. highly entitative groups). Therefore, the idea to focus on in-groups and out-groups seemed less relevant in promoting tolerance of personal uncertainty. I conducted a brief literature review before research design; I now understand the benefits of conducting a more extensive literature review beforehand. Nevertheless, as argued in Part Two, RAM theory and uncertainty does reflect and connect to other theoretical perspectives, such as UIT.

### 3.4 Ethical Considerations

The university ethics committee raised a number of concerns in response to the initial proposal:

Table 33 *Ethical Concerns Regarding the Initial Ethics Proposal*

<b>Concern</b>	
<b>No.</b>	<b>Concern</b>
<b>1</b>	The complexity of language used
<b>2</b>	Issues around anonymity with the online questionnaire process
<b>3</b>	The need to declare and clarify that the IUSC scores would not be shared with parents and are not diagnostic or predictive of any outcomes (e.g. re: school performance or mental health)
<b>4</b>	An indicative programme outline was needed before Study 2 could begin.

These issues were easily remedied through minor amendments. For research around a controversial topic, there were no significant difficulties gaining ethical approval. This may be because I learned to detail processes clearly and balance my curiosity and drive with ethical practice. Supervision and peer support allowed me to reflect on my initial research ideas and consider the implications of discussing radicalisation with potentially vulnerable people. This support allowed me to re-design my research so that it aligned with ethical practice.

### 3.5 Design and Procedure

The research design was influenced by my own professional practice. In Year 2 of the doctorate, I co-constructed adverse childhood experiences (ACEs) training. An EP and I produced an innovative training package collaboratively by harnessing our knowledge, skills and passion. I wanted to incorporate this approach into the research design. I believed that a collaborative EP approach could produce better outcomes than I could alone. Furthermore, I understood the importance of piloting, as the ACEs training was piloted. For this study, the pilots were run consecutively because I wanted to use the Pilot 1 evaluation to strengthen Pilot 2. The programme was named *Embrace Life* because I wanted the programme to be positively framed and skill based. I wanted to help YP see what they could do to improve their relationship to uncertainty, not focus on what they shouldn't be doing or experiencing.

The research questions (RQs) were formulated in conjunction with the pragmatist epistemology and reflect an exploration of programme usefulness in promoting resilience to radicalisation. The RQs were beneficial to the research aims, but Study 2's research questions all explored the programme and its efficacy. I feel this may have limited my understanding of how the YP constructed uncertainty generally, which I am curious about. In this way, epistemology shapes what researchers are interested in and what research questions they formulate.

The WCM was successful because it created a safe, relaxed atmosphere conducive to discussion and critical thinking. The NGT was useful in developing the core components of *Embrace Life*. I feel that another EP session to consider ideas for activities may have been useful, but EPs had limited time to invest in the research. I thoroughly enjoyed the opportunity to share psychology in a creative and fun way with YP during programme delivery. In future research, it would be helpful to conduct training with school staff and co-lead the sessions.

### 3.6 Recruiting Participants

Due to the provocative topic of radicalisation, the study was divided into two parts. Study 1 aimed to explore radicalisation through the lens of RAM theory and develop a programme to strengthen tolerance of personal uncertainty. Study 2 implemented and evaluated that programme. The uncertainty focus of Study 2 may have been less threatening than radicalisation to schools and parents/carers. This aided recruitment in Study 2. Ethically, it was important that the schools and participants knew *Embrace Life* was developed to explore building resilience to radicalisation. However, less evocative language was used to describe this. *Embrace Life* was presented as a programme that aimed to strengthen tolerance of personal uncertainty because having difficulties tolerating uncertainty has been associated with more rigid and inflexible thinking (Appendix N-Q). This was an interesting learning point as this wording still conveys the programme aims but reduces the likelihood of perceived discomfort in being involved with a study on radicalisation.

Without a connection to a school, recruitment for Study 2 was difficult and so a convenience sample was employed. I had a connection with the schools selected (e.g. a family member worked in the school; a school in my patch). It is acknowledged that the sampling method used limits the generalizability of the results and therefore the thesis is considered a preliminary pilot study. In the future, I will be working in a large, urban LA and conducting research on behalf of the LA/EPS could provide opportunities for more rigorous sampling methods (e.g. random sampling).

### **3.7 Data Collection**

The main difficulties around data collection stemmed from Study 2, where YP a) omitted certain questions in the IUSC rendering their data invalid, b) chose not to do the follow up questionnaires or c) were absent or unavailable to complete follow-up questionnaires. This significantly reduced the number of participants and especially affected the quantitative results. For example, this resulted in the exclusion of 12 participants in Pilot 1 and 10 participants in Pilot 2 from the quantitative analysis of the IUSC scores. This exemplifies the rationale for having a large sample size, as potential participant attrition would then have less impact on the validity of the study. It is difficult to avoid question omission as participants must retain the right to not answer. However, I relied on staff members to follow up on children who did not complete the questionnaire or were absent. It may have been an idea to return again during the time that is allocated for general group/class-based activities to follow this up and I would do this in future.

As outlined in Part 2, Section 7.6, the SSIs were completed by an EP or assistant EP unrelated to the project. It was important to avoid social desirability, participant and researcher bias and the thesis still posits that this was a wise methodological decision. However, there could have been some advantages to conducting the SSIs myself. For example, I was very familiar with the programme content and so may have been able to probe participants' views of the programme at greater depth than the interviewers in this study. Most importantly, I developed a relationship with the participants as I delivered the programme and this may have helped the interviewees to feel more secure and confident to answer questions. Similarly, with my knowledge of them as a person, I may have been better able to adapt questioning in line with their personal experience. However, whilst this may have added depth to the interview, it could have been perceived as the researcher having too much overt influence on the data.

### 3.8 Data Analysis & Interpretation

The quantitative data analysis was easiest once I understood which statistical test to use; however, I would have approached things differently in hindsight. I selected the IUSC as it had been validated with YP and it measured tolerance of uncertainty, which appeared to relate well to RAM theory (Comer et al., 2009). However, the research design must be considered carefully before the selection of a measure and I would give this more consideration in future. For example, the IUSC is an example of an ordinal scale and therefore required a non-parametric test (Howell, 2013). However, the research design accumulated data at three different time points (pre-; post; 8-weeks post), limiting the statistical test that could be used to the Friedman test. It was only at the point of analysis that I realised that my research design (i.e. the non-random sampling of participants) would lead to a key assumption of the Friedman test being violated (i.e. the group needs to be a random sample drawn from the population). Had significant differences been found, this would have impacted greatly on the generalizability of the findings. Conversely, due to the assumption violation, the research cannot posit that *Embrace Life* would not have significant effects on a random sample of Year 8s. Thus, as previously mentioned, this study is considered a preliminary pilot study from which further research can be guided.

Furthermore, the null hypothesis was accepted but there is always the possibility of Type II error, whereby the statistical test did not detect a significant difference in the IUSC between time points when there actually was a difference (Howell, 2013). Type II errors can be avoided by increasing the sample size, which increases the power of the study. Unfortunately, this was not possible and therefore the small sample size and the participant attrition increases the possibility of Type II error (See Part 2 Section 10). Further study should endeavour to use the preliminary findings to replicate the study with a larger sample.

In terms of the qualitative data, thematic analysis was conducted on the data from Pilot 1 and themes extracted. When I was coding the transcripts for Pilot 2, it was my original intention to conduct a separate thematic analysis and then merge the thematic maps if that were possible. Thus, I endeavoured to approach the coding of Pilot 2 with a fresh perspective. While, it must be acknowledged that the coding of Pilot 1 may have influenced how I coded Pilot 2; thematic analysis is a process which involves seeking



commonality amongst the data (Braun & Clarke, 2013). As there were only minor procedural and content differences between the programme delivered in Pilot 1 and Pilot 2, it is understandable that participants across pilots may have shared similar perceptions of the benefits and challenges as reflected in some themes and sub-themes (e.g. *Skilled and ready*; *Accept & tackle*; *I'm normal*; *Self-consciousness*; *"Boring hippie nonsense"*). Conversely, there were some themes that were exclusively relevant to Pilot 1 (e.g. *Unrealistic expectations*) and from that pragmatic paradigmatic perspective, I endeavoured to remedy issues related to the themes for Pilot 2 (i.e. providing more clarity about the programme at the beginning of Pilot 2). Similarly, the glowing review of *Embrace Life* in Pilot 1 by Ethel (staff member) was contrasted by helpful, constructive criticism from staff in Pilot 2 (e.g. *Real-life connections*; *Mindful environment*). The rationale for conveying all of these themes and their inter-relatedness in one thematic map (Figure 20) was to aid interpretation, provide a deeper understanding of the impact of *Embrace Life* and improve clarity for the reader. This can be further discussed at VIVA, if necessary. Furthermore, as I was involved in the programme development and its evaluation via thematic analysis, I endeavoured to maintain a critical and curious stance rather than prove 'my' programme's efficacy. This was facilitated by investigator triangulation (Appendix RR) and having critical conversations with my supervisor. I endeavoured to provide a balanced portrayal of the programme that was led by the data.

The high value and esteem given to quantitative methods in psychological research (Fox, 2011) may have encouraged my use of the IUSC. For example, I felt that the IUSC could explore the effectiveness of *Embrace Life* in a way that would be deemed more credible within psychology. Following the non-significant IUSC result of Pilot 1, I contemplated whether there were other ways to understand how *Embrace Life* may have impacted on personal uncertainty that were missed by the de-contextualised IUSC. Although evidenced to be reliable and valid for use with YP (Comer et al., 2009):

- The process of engaging in questionnaires can be laborious will naturally provide a less rich picture of YP's constructs about uncertainty than a qualitative measure;
- The language used can be unclear or ambiguous without context (e.g. Being unsure means a person is mixed up). This is particularly important for YP who have social communication and interaction difficulties and may have challenges interpreting idiom or turn of phrase (e.g. When I am not sure of something I can't go forward; I don't like being taken my surprise).

Consequently, the vignettes were added to Pilot 2 to explore how engaging with *Embrace Life* may have affected confidence and strategies used to cope with uncertainty. It was hypothesised that this would add more depth to the data analysis than the IUSC alone because the IUSC explores IU disconnected from context, unlike vignettes. The vignettes conveyed that perceived confidence appeared to improve. I also tried to code the vignettes for the coping strategies that *Embrace Life* endeavoured to teach (i.e. acceptance; assertiveness). However, after spending time on the vignettes, it became clear that the coding conducted added little rigour or credibility to the research for the following reasons:

Table 34 *Issues with the Use of Vignettes in the Study*

Issue No.	Issue
1	Each uncertainty-inducing vignette is a different scenario and therefore, it is difficult to know whether changes in uncertainty orientation (confidence in dealing with uncertain scenarios; acceptance vs. avoidance) are due to the effects of the programme or the specifics of the vignette.
2	Vignette critiques caution researchers about the discrepancy between what individuals say they would do and what they would actually do in reality (Barter & Renold, 2000).
3	Some responses were too short to code effectively.
4	A participant's response may not reflect all of what they may do in that situation. For example, failing to convey an assertive strategy to cope does not mean that this strategy is not in their repertoire of skills; he/she may have chosen not to divulge it. Similarly, a participant's complexity of response may be influenced by his/her mood that day and how much they value completing questionnaire and therefore, may give an inaccurate portrayal of their hypothetical response.
5	Effective coding of the language used in the vignette responses required more of an interpretive analysis which may have been in conflict with the pragmatic epistemology of the study.

In future, I would not use vignettes as part of a pragmatic approach (e.g. to explore whether a programme succeeds in its aims) and instead, use them with a more interpretivist epistemology (e.g. to understand how YP manage uncertainty or resolve difficulties). Alternatively, if I had had more time, I would have piloted the vignettes to test their credibility and trustworthiness at eliciting personal uncertainty. This could have been facilitated by piloting the vignettes on greater number of individuals and varying ages, before applying and adapting them to the specific secondary school context. This may have helped provide reassuring, preliminary evidence for the use of the vignettes in this study. It could have also helped determine if there was any ambiguity with the language used in the vignettes (Hughes & Huby, 2012). Although, my research supervisor revised the vignettes to enhance construct validity, it may have been advantageous to have a panel of YP (aged 12-13-year-old) determine whether the vignettes accurately reflect situations that the YP in the study typically experience and, therefore, genuinely prompt personal uncertainty. This would have further enhanced the credibility and trustworthiness of the vignettes.

### **3.9 Closing Reflections of the Researcher as Professional Practitioner**

My research journey has imbued me with a passion for keeping psychology at the forefront of my practice. The literature review has enhanced my criticality and helped me appreciate the value of delving into both the theoretical and research literature to inform practice. I am a very driven and ambitious person and I think this influenced the scale of the thesis, which has been difficult at times. However, my perseverance and optimistic attitude have helped the thesis to unfold successfully. These same approaches will undoubtedly influence my future professional practice and it will be important to balance my drive with maintaining a positive sense of well-being. The greatest challenge has been adhering to the suggested word counts of the thesis. I feel this is related to the scale of the research and the completion of two studies. The support of my supervisor has been unparalleled, especially in terms of developing my clarity, criticality and coherency. Finally, the moral outrage that began the thesis has subsided. Instead, I am curious about how I can continue this research journey to promote positive outcomes for all through the development of positive well-being, resilience, purpose and belonging.

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## Appendix A: Literature Review Scoring Rubric (Hart, 1998; Mertens, 2015)

The literature scoring rubric below was used to demonstrate the rigour of the narrative literature review.

Category	Criterion	1	2	3	4
1. Coverage	a. Justified criteria for inclusion and exclusion from review	Did not discuss the criteria inclusion or exclusion	Discussed the literature included and excluded	Justified inclusion and exclusion of literature	
2. Synthesis	b. Distinguished what has been done in the field from what needs to be done	Did not distinguish what has and has not been done	Discussed what has and has not been done	Critically examined the state of the field	
	c. Placed the topic or problem in the broader scholarly literature	Topic not placed in broader scholarly literature	Some discussion of broader scholarly literature	Topic clearly situated in broader scholarly literature	
	d. Placed the research in the historical context of the field	History of topic not discussed	Some mention of history of topic	Critically examined history of topic	
	e. Acquired and enhanced the subject vocabulary	Key vocabulary not discussed	Reviewed relationships among key variables and phenomena	Discussed and resolved ambiguities in definitions	
	f. Articulated important variables and phenomena relevant to the topic	Key variables and phenomena not discussed	Some critique of literature	Noted ambiguities in literature and proposed new relationships	
	g. Synthesized and gained a new perspective on the literature	Accepted literature at face value		Offered new perspective	
3. Methodology	h. Identified the main methodologies and research techniques that have been used in the field and their advantages and disadvantages	Research methods not discussed Research methods not discussed	Some discussion of research methods used to produce claims Some discussion of appropriateness of research methods to warrant claims	Critiqued research methods Critiqued appropriateness of research methods to warrant claims	Introduced new methods to address problems with predominant methods
	i. Related ideas and theories in the field to research methodologies				
4. Significance	j. Rationalized the practical significance of the research problem	Practical significance of research not discussed	Practical significance discussed	Critiqued practical significance of research	
	k. Rationalized the scholarly significance of the research problem	Scholarly significance of research not discussed	Scholarly significance discussed	Critiqued scholarly significance of research	
5. Rhetoric	l. Was written with a coherent, clear structure that supported the review	Poorly conceptualized, haphazard	Some coherent structure	Well developed, coherent	

Narrative Literature Review Scoring		
Category	Criterion Achieved	Evidence
Coverage	Level 3: Justified inclusion and exclusion of the literature	See 'Inclusion & Exclusion Criteria' and introduction to differing theoretical perspectives.
Synthesis	Level 3: Critically examined the state of the field	Criticality demonstrated throughout the literature review. See Appendix B for a trail of the narrative literature search
	Level 3: Topic clearly situated in broadly scholarly literature	See Literature Review References See Appendix B for a trail of the narrative literature search
	Level 3: Critically examined history of the topic	See 'Relevance of radicalisation to Children, Young People, Families, Schools and Educational Psychologists in the UK Context'.  See the critique of 'Current Approaches to Radicalisation Prevention'
	Level 3: Discussed and resolved ambiguities in definitions	See 'Definitions and Terminology related to Radicalisation'
	Level 2: Reviewed relationships amongst variables and phenomena	See the comparison of different theories of radicalisation throughout. See the difference between universal and targeted approaches to radicalisation prevention and radicalisation itself.
	Level 3: Noted ambiguities in the literature and proposed new relationships	See the connection between varying theories of radicalisation and uncertainty throughout (e.g. Uncertainty-Identity Theory and Reactive Approach Motivation).



		See Table 8 critiquing the teaching approaches that help to build resilience to extremism in young people reported by the DfE (2011).
	Level 3: Offered new perspectives	See Table 8 critiquing the teaching approaches that help to build resilience to extremism in young people reported by the DfE (2011).
Methodology	Level 3: Critiqued research methods	See ‘Current approaches to radicalisation prevention’ &, specifically, Table 8 critiquing the teaching approaches that help to build resilience to extremism in young people reported by the DfE (2011).
Significance	Level 3: Critiqued the practical significance of the research	See section on ‘current approaches to radicalisation prevention’
	Level 3: Critiqued the scholarly significance of the research	Indicated throughout
Rhetoric	Level 3: Well-developed coherent structure	Demonstrated throughout literature review.

## Appendix B: Trail of the Narrative Literature Search

Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* or terror*
Results	15,456; No articles downloaded
Comments	The word terror was bringing in too many results related to terror attacks and reactions to terrorism. It was important to focus on the process of radicalisation.
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis*
Results	2,487; 65 articles downloaded
Comments	Articles were downloaded if they related to: <ul style="list-style-type: none"> <li>theories/models of the radicalisation process <b>OR</b></li> <li>the UK context with regards radicalisation (policy; practices; norms etc.). <b>OR</b></li> <li>preventative approaches (generally) <b>OR</b></li> <li>preventative approaches (in the UK)</li> </ul>
<b>Broad Search</b>	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> child* or teen* or adolesc* or school* or young* or youth
Results	477; 2 articles downloaded that were not picked up in the broad search
Comments	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> personality
Results	250; 1 article downloaded that was not picked up in the broad search
Comments	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> child* or teen* or adolesc* or school* or young* or youth <b>AND</b> prevent* or progr* or interven* <b>AND</b> resilien*
Results	15; 1 article downloaded that was not picked up in the broad search
Comments	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> prevent* or progr* or interven* or resilien* <b>AND</b> UK or United Kingdom
Results	26; 2 articles downloaded that was not picked up in the broad search

Comments	One article discounted as it spoke of the influence of Al Qaeda and was dated 2011 and therefore deemed not reflective of current UK context.
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> psychiatr* or mental health or mental disord* or mental illness or personality disorder
Results	183 results; 1 article downloaded that was not picked up in the broad search
Comments	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> social identity
Results	79; 11 articles downloaded
Comments	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> avoid*
Results	56; 0 downloaded
Comments	All relevant items picked up in broad search
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> dark triad
Results	1
Comments	Already picked up in broad search
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> REBT OR Rational Emotive Behaviour Therapy
Results	3
Comments	Only two were relevant and were picked up in broad search
Search Date	17.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* <b>AND</b> perfectionism
Results	2; Downloaded 1 that was relevant
Comments	
Search Date	17.08.2018
Database	PsycInfo
Key Words	Two pyramids
Results	2 results; 1 downloaded that was not picked up in broad search
Comments	Behavioural theory of radicalisation

Search Date	18.08.2018
Database	PsycInfo
Key Words	Reactive Approach Motivation or RAM AND uncertain*
Results	18; 6 downloaded
Comments	
Search Date	21.08.2018
Database	PsycInfo
Key Words	Reactive Approach Motivation or RAM or approach motivation
Search Date	21.08.2018
Results	20; 13 downloaded
Database	PsycInfo
Key Words	4 articles were recommended due to previous articles Radicaliz* or radicalis* or extremis* AND collective strain
Results	downloaded.
Search Date	21.08.2018
Comments	Already picked up in broad search
Search Date	21.08.2018
Key Words	Reactive Approach Motivation or RAM or approach motivation
Database	PsycInfo
Key Words	or compensat* AND uncertain* AND Radicaliz* or radicalis* Radicaliz* or radicalis* or extremis* AND collective effort
Results	0
Results	5; 0 downloaded
Comments	All picked up in previous searches
Search Date	21.08.2018
Database	PsycInfo
Key Words	Reactive Approach Motivation or RAM or approach motivation or compensat* AND uncertain*
Results	507; 9 articles downloaded
Comments	2 articles were recommended due to previous articles downloaded.
Search Date	21.08.2018
Database	PsycInfo
Key Words	Behavio* inhibition system AND uncertain*
Results	12; 3 downloaded
Comments	
Search Date	21.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* AND meaning maintenance
Results	3; 0 downloaded
Comments	Already downloaded
Search Date	21.08.2018
Database	PsycInfo
Key Words	Radicaliz* or radicalis* or extremis* AND educational psychologist* or EP
Results	1; 0 downloaded
Comments	Already downloaded
Search Date	21.08.2018
Database	PsycInfo
Key Words	educational psychologist* or EP AND mental health or well- being AND role – FILTERED by articles from 2010
Results	43; 6 downloaded

### Appendix C: Brief Outlines of the Integrative Models of Radicalisation

Comments	Articles were deemed relevant if they provided an insight into how EPs currently support mental health and well-being
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#### A. **Four Stage Model of Radicalisation (Borum, 2004)**

Borum developed his four-stage model from anecdotal and unsystematic analyses of the trajectories of extremist groups with diverse ideologies. Borum posits that perceptions of grievance due to unfavourable inter-group comparison lead to a demonization and hatred of the outgroup which can lead to justifications for violence. The model is linear and progressive meaning that each stage is needed in this order to reach the final destination of the justification of violence (Borum, 2004; King & Taylor, 2011)



*Figure C1.* Borum's four stage model of radicalisation (2004 cited in Borum, 2011)

Search Date	23.08.2018
Database	PsycInfo
Key Words	mental health or well-being <b>AND</b> school* or child* <b>AND</b> UK or United Kingdom
Results	1203; 7 downloaded
Comments	A lot of irrelevant material; made search more specific below
Search Date	23.08.2018
Database	PsycInfo
Key Words	mental health or well-being <b>AND</b> school* <b>AND</b> UK or United Kingdom
Results	360; 16 downloaded
Comments	Material was deemed relevant if it gave a current insight into: <ul style="list-style-type: none"> <li>• interventions/programmes/preventative approaches to promoting mental health</li> <li>• the current status of mental health in UK schools and government</li> </ul>
Search Date	23.08.2018
Database	PsycInfo
Key Words	CBT or cognitive behavioural therapy <b>AND</b> school* <b>AND</b> UK or United Kingdom
Results	20; 3 downloaded
Comments	
Search Date	23.08.2018
Database	PsycInfo
Key Words	CBT or cognitive behavioural therapy <b>AND</b> school* <b>AND</b> UK or United Kingdom
Results	20; 3 downloaded
Comments	
Search Date	23.08.2018
Database	PsycInfo
Key Words	CBT or cognitive behavioural therapy <b>AND</b> school* <b>AND</b> universal
Results	24; 1 downloaded
Comments	
Search Date	23.08.2018
Database	PsycInfo
Key Words	Acceptance and commitment therapy <b>AND</b> school*
Results	90; 8 downloaded
Comments	Downloaded if brought about an insight into the use of ACT within schools. And UK or United Kingdom was not used as combining these terms yielded too few results (1)
Search Date	23.08.2018
Database	PsycInfo
Key Words	Mindfulness <b>AND</b> school*
Results	896; 11 downloaded

#### **B. Wiktorowicz's Theory of Joining Extremist Groups (Wiktorowicz, 2005)**

Comments	Enough reviews of the current literature on mindfulness and work completed in UK were downloaded.
Search Date	23.08.2018
Database	Education Resources Information Centre (ERIC)
Key Words	Radicaliz* or radicalis* or extremis*
Results	621; 6 downloaded
Comments	These provided educational perspectives on British policy concerning radicalisation
Search Date	23.08.2018
Database	Google Scholar
Key Words	Radicaliz* or radicalis* or extremis* AND child* AND school*
Results	5,570 results; 1 downloaded
Comments	A lot of replication here from searches on PsycInfo and refining proved difficult using this search engine.
Search Date	23.08.2018
Database	Web of Science
Key Words	Radicaliz* or radicalis* or extremis* AND child* AND school* AND theory
Results	45 results; 1 downloaded
Comments	A lot of duplication here.
Search Date	23.08.2018
Database	Web of Science
Key Words	Theories of radicalisation
Results	140; 1 downloaded
Comments	Most had been found via other searches
Search Date	29.09.2018
Database	Psycinfo
Key Words	Role or function* AND educational psycholog* or EP AND UK or United Kingdom or Brit*
Results	132; 1
Comments	Mostly articles that lacked broader perspective of the EP role and the functions of the EP
Search Date	29.09.2018
Database	Taylor & Francis Online
Key Words	Role AND educational psychologist IN Educational Psychology in Practice
Results	932; 12 articles downloaded
Comments	
Search Date	29.09.2018
Database	Psycinfo
Key Words	Radicaliz* or radicalis* or terror* AND mental ill*
Results	139; 5 articles downloaded
Comments	
Search Date	30.09.2018
Database	Psycinfo
Key Words	terror* AND mental* or personality or disorder*
Results	3909; 0 downloaded
Comments	
Search Date	16.10.2018

Database	Psycinfo
Key Words	terror* or radicalis* or radicaliz* AND psychopath*
Results	431; 1 downloaded
Comments	
Search Date	16.10.2018
Database	Psycinfo
Key Words	radicalis* or radicaliz* AND personality
Results	25; 0 downloaded
Comments	
Search Date	16.10.2018
Database	Psycinfo
Key Words	Terror* or radicalis* or radicaliz* AND personality
Results	882; 1 downloaded
Comments	
Search Date	16.10.2018
Database	Psycinfo
Key Words	radicalis* or radicaliz* AND personality
Results	160; 1 downloaded
Comments	
Search Date	30.10.2018
Database	Psycinfo
Key Words	uncertainty identity theory
Results	43; 7 downloaded
Comments	
Search Date	04.11.2018
Database	Psycinfo
Key Words	Social dominance orientation AND radicalis* or radicaliz* or extremis* or terror*
Results	43; 4 downloaded
Comments	
Search Date	04.11.2018
Database	Psycinfo
Key Words	Dual Identity AND radicalis* or radicaliz* or extremis* or terror*
Results	4; 1 downloaded
Comments	
Search Date	23.11.2018
Database	Psycinfo
Key Words	Cognitive style AND conservatism or liberalism or extremism
Results	61; 6 downloaded
Comments	
Search Date	26.11.2018
Database	Psycinfo
Key Words	Meaning maintenance



Results	53; 1 downloaded
Comments	

Wiktorowicz's model is based on ethnographic case studies of members of Al-Muhajiroun, which is a transnational Islamist organisation that promotes Islamic revolution and the creation of a worldwide Islamic State (Aly & Striegher, 2012; King & Taylor, 2011). The model identifies four processes that may lead someone to join an extremist group. It begins with a *cognitive opening*, which is defined as a personal crisis that opens up an individual to ideas/approaches they would never have considered previously. Following this, the Islamic religion is sought as a means of dealing with this personal crisis and through discussion and exploration the individual finds that the Islamic world view aligns with their own. Following this, the individual joins the extremist group, connects with the ideology and adopts the group identity. The model is linear and emergent, meaning that there are number of ways within the model through which an individual can reach the final destination of joining an extremist group (King & Taylor, 2011; Wiktorowicz, 2005).

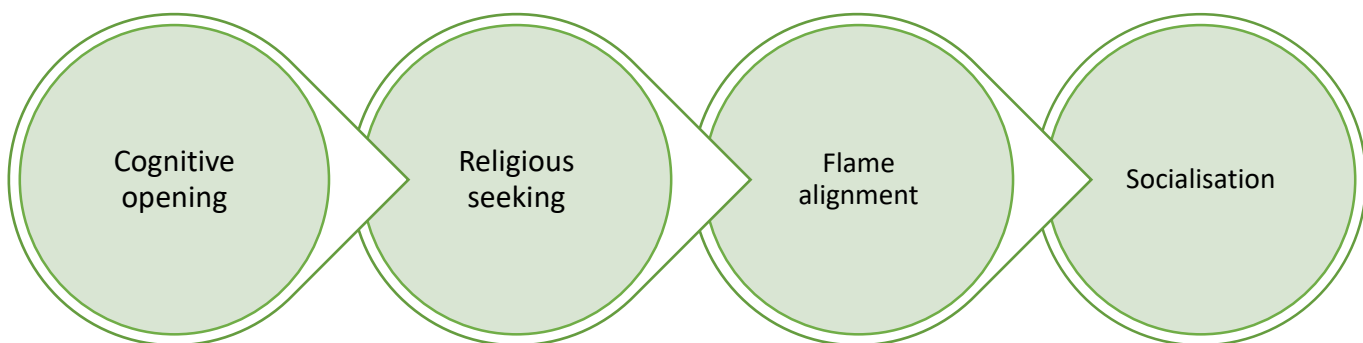


Figure C2. Wiktorowicz's model of joining extremist groups (2005)

### C. Staircase to Terrorism Model (Moghaddam, 2005)

Moghaddam's model begins in perceptions of relative deprivation and moves into an analysis of options to deal with this relative deprivation. When there are few legitimate ways to reduce relative deprivation, individuals are then motivated to find alternative ways to improve group status. The frustration associated with the inability to alter relative deprivation leads to the direction of anger towards the outgroup and where the moral justification of terrorism becomes legitimized. This can then lead to the individual joining an extremist group, where this moral justification is further intensified. The final floor is associated with maximising the difference between in-group and out-group, which allows for the bypassing of natural mechanisms that would inhibit violence against others. The model is linear and progressive, meaning that each stage is needed in this order to reach the final destination of the justification of violence (King & Taylor, 2011; Moghaddam, 2005).

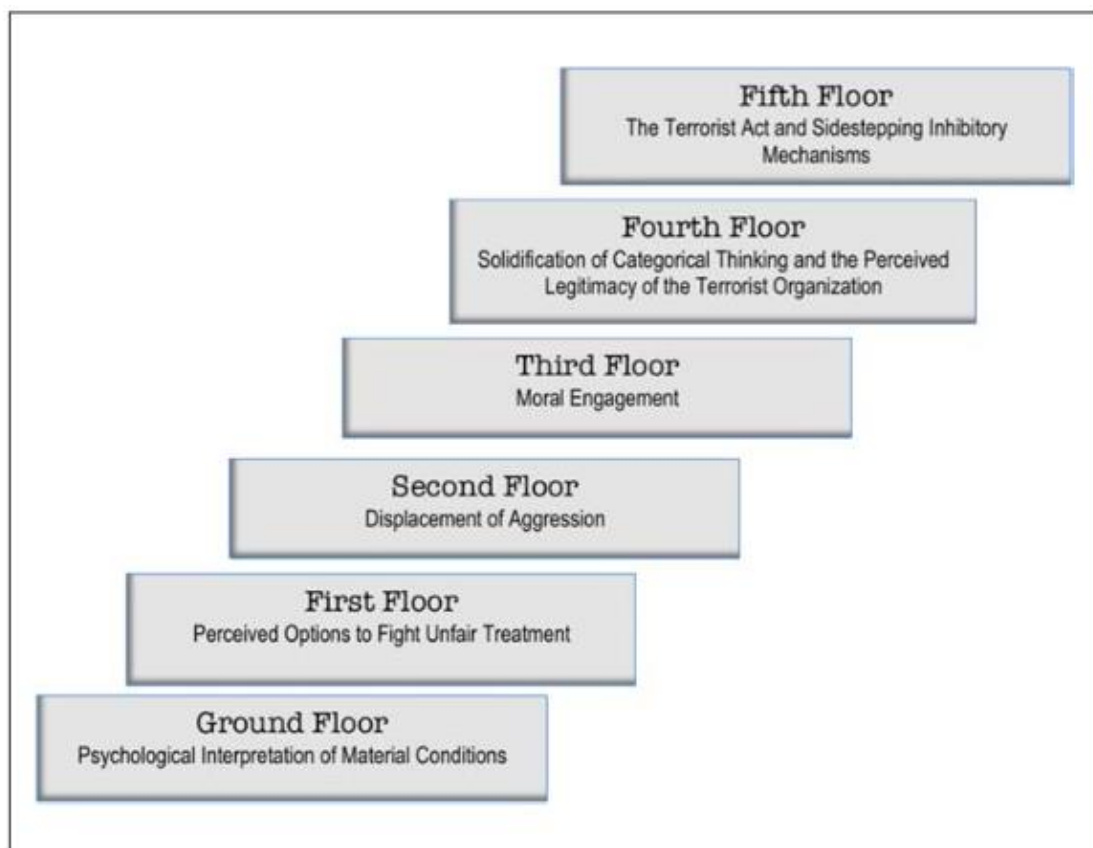
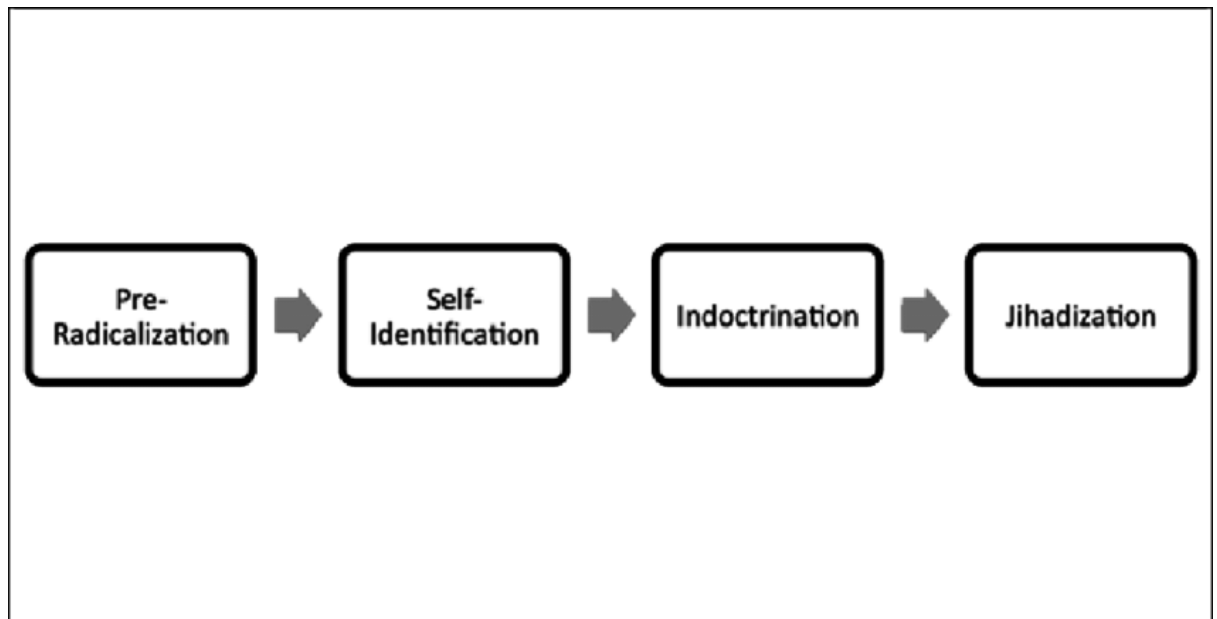


Figure C3. Staircase to terrorism model (Moghaddam, 2005)

**D. New York Police Department (NYPD) Radicalisation Process (Silber & Bhatt, 2007)**

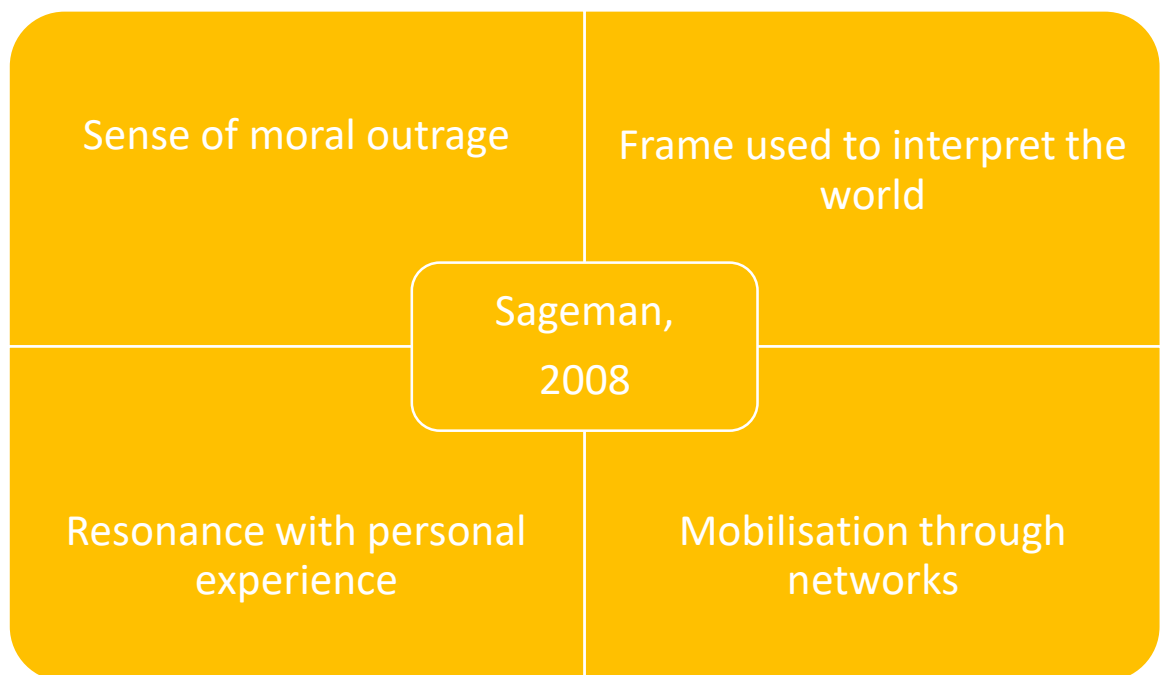
The New York Police Department (NYPD) model of radicalisation was devised through an analysis of five homegrown terrorist cases in North America and Europe. This model posits a move from no thoughts of radicalization to identifying with radical Islam in response to a personal crisis. Then, like-minded individuals are sought out to further deepen their commitment to the religion and new ideology. In the ‘indoctrination’ phase, the individual wholly accepts the view that Islam should be spread by any means necessary (for example through jihad, fighting the enemies of Islam) and then finally engages in jihadism. The model is linear with steps being followed in order until engagement in Jihad (King & Taylor, 2011; Silber & Bhatt, 2007).



*Figure C4.* NYPD radicalisation process (Silber & Bhatt, 2007)

### **E. Four Prongs Model of Radicalisation (Sageman, 2008)**

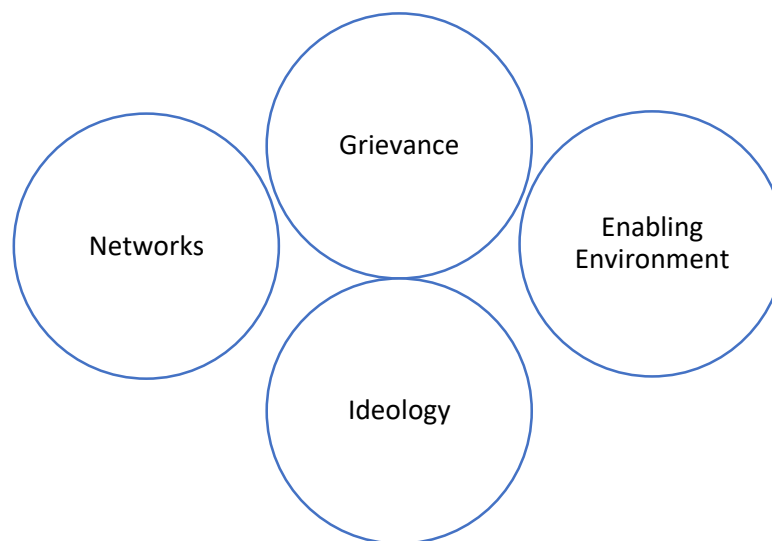
Sageman proposes the interplay of four factors that may influence the radicalisation process: three cognitive factors and one situational. Sageman suggests that individuals may be outraged by world events that they perceive to be unjust and they use this to adopt a singular ideological narrative that links with their own personal experience or crisis (e.g. There is a western war on Islam). This propels them to seek out individuals who are like-minded to further their commitment to extremism. Importantly, this mobilisation through networks can occur in real-life or via the internet, The model is non-linear and emergent meaning that individuals can access any of these stages at any time and simultaneously to reach a radicalised outcome (King & Taylor, 2011; Sageman, 2008).



*Figure C5. Sageman's four prongs model of radicalisation (2008)*

#### **F. Four Factor Model of Radicalisation (Hafez & Mullins, 2015)**

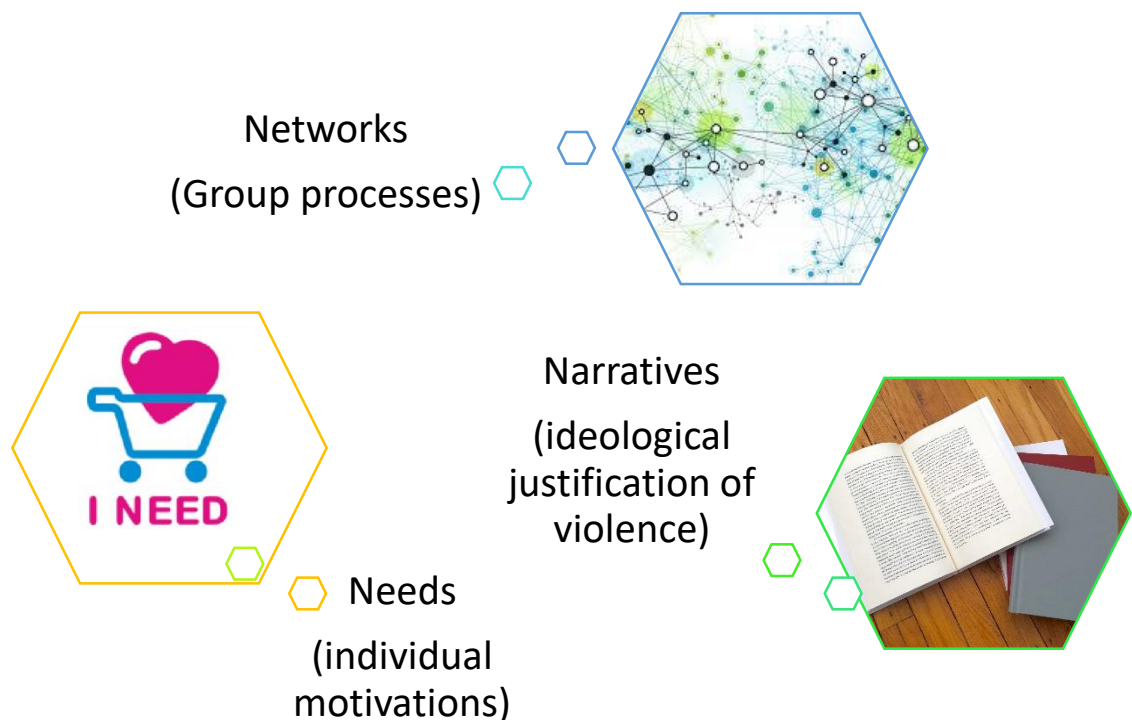
Hafez and Mullins (2015) reviewed the empirical literature on home grown extremism and developed a four-factor model of radicalisation. The model proposes that grievance, due to perceived marginalisation and/or relative deprivation, can result in self-reinforcing exclusion of minority groups, where these groups react to the negative views of their identity by further accentuating their differences which results in further exclusion. The process is facilitated by having connections with people who already feel similarly, and this is a key factor in establishing the social networks in which extremism thrives. Within these networks, individuals begin to develop extremist ideologies. Enabling environments further deepen commitment to these ideologies (e.g. the internet, social media, military training camps). The model is non-linear and emergent meaning that individuals can access any of these stages at any time and simultaneously to reach a radicalised outcome (Hafez & Mullins, 2015).



*Figure C6.* Four factors model of radicalisation (Hafez & Mullins, 2015)

### **G. Social Psychological Model of Radicalisation (Webber & Kruglanski, 2018)**

After reviewing the empirical literature on radicalisation, Webber and Kruglanski (2018) posit that humiliating, shameful experiences create a discrepancy between how a person feels they are perceived and how they would like to be perceived. This creates a need for a sense of purpose or significance. They acknowledge that this alone cannot lead to extremist behaviour, but that certain ‘opportunity’ factors can influence the likelihood of radicalisation occurring. They propose that these opportunity factors are a) the ideological justification of violence through the adoption of an extremist narrative and b) group processes that bring about group identification, strengthen collective identity and propagate behaviour that facilitates group goal actualisation. The model is non-linear and emergent meaning that individuals can access any of these stages at any time and simultaneously to reach a radicalised outcome (Webber & Kruglanski, 2018).



*Figure C7. Social psychological model of radicalisation (Webber & Kruglanski, 2018)*

## H. Multilevel Social Neuroscience Model of Radicalisation (Decety et al., 2018)

Decety's model proposes that individuals become disconnected from friends and family and in their isolation seek out familial-like relationships with others. Social processes strengthen in-group connection and lead to derogation of, and distancing from, the out-group. This distancing is implicated in reducing exposure to competing values and further strengthens in-group-centric views, eventually leading to the loss of personal identity and the dehumanisation of the outgroup. This creates a group environment in which extremist ideological narratives, that justify violence towards the outgroup, flourish. The newfound addition in this model is the addition of individual vulnerabilities. They implicate neuroendocrine and genetic pathways, which mediate the link between cognition and radical behaviour (Decety et al., 2018).

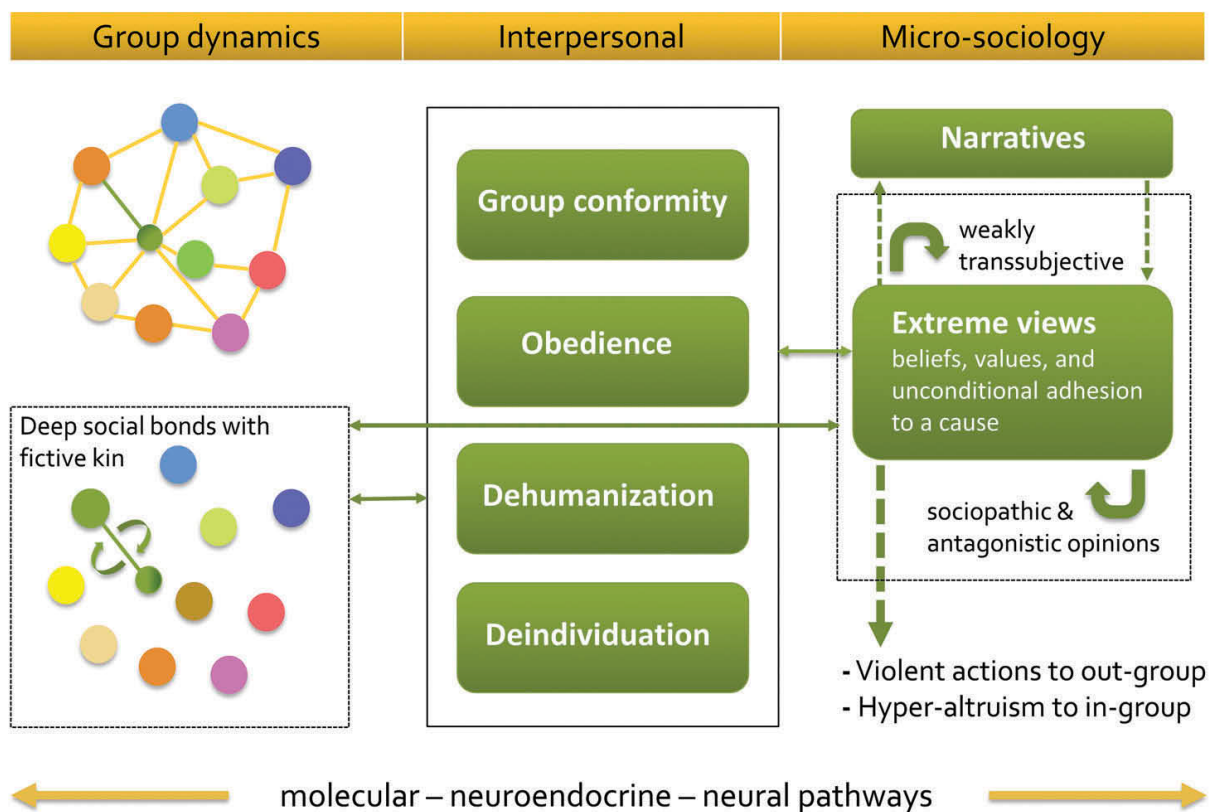
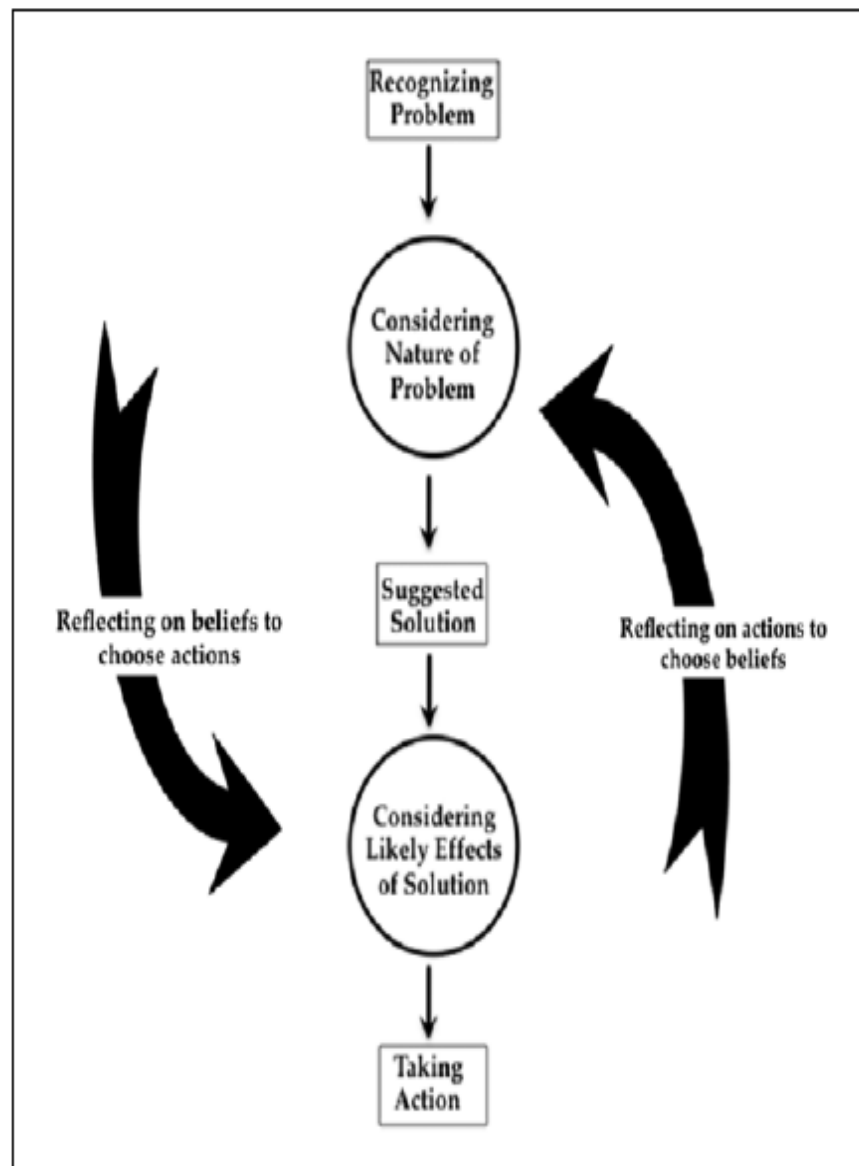


Figure C8. Multilevel social neuroscience model of radicalisation (MLSN; Decety et al., 2018)

## Appendix D: Dewey's Model of Inquiry (1998)





## Appendix E: Gatekeeper letters for Principal Educational Psychologists (PEPs)

Dear (INSERT PEP NAME),

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service (EPS). I am writing to invite educational psychologists (EPs) within your service to take part in a research study to develop a **universal programme to increase young people's (YP) tolerance of personal uncertainty**. The research study will be supervised by educational psychologist & professional tutor, Andrea Higgins.

Initially, the research study wishes to recruit educational psychologists to form a working group to generate content ideas for the programme. Then, the programme would be developed by the researcher, evaluated and piloted in secondary schools in two local authorities in England & Wales.

**The rationale for the study is twofold. The programme developed could have numerous benefits for EPs and their work in schools both as a universal programme that would support the resilience of all YP and potentially as a preventative measure in reducing vulnerability to radicalisation amongst YP.**

This rationale derives from experimental research related to Reactive Approach Motivation (RAM) theory (McGregor et al., 2013). RAM theory proposes that on experiencing motivational conflict, a person can experience personal uncertainty, which can result in anxiety or distress. Consequently, an adoption of a radical/extremist ideology may lead to a dampening of these emotions, as the radical ideology provides an alternative focus that provides clarity in uncertain times (Kay & Einbach, 2013; McGregor et al., 2013).

The working group would be conducted in **one morning session (4 hours) in April 2018** in (INSERT VENUE) and **offered free of charge**, including refreshments:

Time	Working Group Content	Method of group consultation/delivery
<b>9-9:30am</b>	✓ Coffee and Refreshments ( <b>9:30am Start</b> )	
<b>9:30am-10:30am</b>	✓ Reactive Approach Motivation (RAM) theory and its link to personal uncertainty. ✓ An exploration of EPs' views of the relevance of RAM in understanding the process of radicalisation & how YP's tolerance of uncertainty can be strengthened.	Presentation  World Café Method
<b>Comfort Break</b>		
<b>10:45-12:00pm</b>	✓ What would be the core components of a universal programme to strengthen YP's tolerance of personal uncertainty?	Nominal Group Technique

	✓ What would be the ideal mode of implementation and delivery?	
<b>12:00-12:30pm</b>	✓ Reflections & Plenary	

**Those that do take part in the working group will be invited to an optional one-hour presentation of the programme once developed by the researcher.** This will provide an opportunity for the researcher to feedback the outcomes of the previous session and allow EPs to anonymously review and evaluate the pilot version of the programme that was developed from the initial session. It is anticipated that this presentation and evaluation would take place at **the end of April 2018**.

The research study **can only invite a maximum of 12 people** to take part in the working group and all the EPSs in the XXXX are being contacted. **If more than 12 EPs wish to take part, EPs will be allocated a number and randomly selected.**

Participation in the research is entirely voluntary and participants have the right to withdraw at any time.

<b>Name of Researcher:</b>	Peter D’Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

**If you would like the EPs who work in your service to be invited to take part, please let me know by email by the INSERT DATE. Then, I will send you information letters and consent forms for the EPs.**

Contact me on the details below if you have any comments or queries:

The research project has been approved by an ethics committee at Cardiff University. Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

Thank you very much for taking the time to read this letter.

Kindest Regards,

Peter D’Lima (Trainee Educational Psychologist)

*Flesch Reading Ease 30.7; Flesch Kincaid Grade Level 13.7*

## Appendix F: Information Letters for EPs

Dear Sir/Madam,

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service (EPS). I am writing to invite you to take part in a research study to develop a **universal programme to increase young people's (YP) tolerance of personal uncertainty**. The research study will be supervised by educational psychologist & professional tutor, Andrea Higgins. Importantly, the Principal Educational Psychologist (PEP) of your service has given me authorization to contact you.

Initially, the research study wishes to recruit educational psychologists to form a working group to generate content ideas for the programme. Then, the programme would be developed by the researcher, evaluated and piloted in secondary schools in local authorities in England & Wales.

**The rationale for the study is twofold. The programme developed would have numerous benefits for EPs and their work in schools both as a universal programme that would support the resilience of all YP and potentially as a preventative measure in reducing vulnerability to radicalisation amongst YP.**

This rationale derives from experimental research related to Reactive Approach Motivation (RAM) theory (McGregor et al., 2013). RAM theory proposes that on experiencing motivational conflict, a person can experience personal uncertainty, which can result in anxiety or distress. Consequently, an adoption of a radical/extremist ideology may lead to a dampening of these emotions as the radical ideology provides an alternative focus that provides clarity in uncertain times (Kay & Einbach, 2013; McGregor et al., 2013).

The working group would be conducted in **one morning session (4 hours) in April 2018** in (INSERT VENUE) and **offered free of charge**, including refreshments:

Time	Working Group Content	Method of group consultation/delivery
<b>9-9:30am</b>	✓ Coffee and Refreshments ( <b>9:30am Start</b> )	
<b>9:30am-10:30am</b>	✓ Reactive Approach Motivation (RAM) theory and its link to personal uncertainty. ✓ An exploration of EPs' views of the relevance of RAM in understanding the process of radicalisation & how YP's tolerance of uncertainty can be strengthened.	Presentation  World Café Method
<b>Comfort Break</b>		
<b>10:45-12:00pm</b>	✓ What would be the core components of a universal programme to strengthen YP's tolerance of personal uncertainty?	Nominal Group Technique

	✓ What would be the ideal mode of implementation and delivery?	
<b>12:00-12:30pm</b>	✓ Reflections & Plenary	

**Should you choose to take part in the working group you will also be invited to an optional one-hour presentation of the programme once developed by the researcher.** This will provide an opportunity for the researcher to feedback the outcomes of the previous session and allow you to anonymously review and evaluate the pilot version of the programme that was developed from the initial session. It is anticipated that this presentation and evaluation would take place at **the end of April 2018**.

The research study **can only invite a maximum of 12 people** to take part in the working group and all the EPSs in the **XXXX** are being contacted. **If more than 12 EPs wish to take part, EPs will be allocated a number and randomly selected.**

Participation in the research is entirely voluntary and all participants have the right to withdraw at any time.

**If you would like to take part, please send sign the attached consent form and return to me by email by the INSERT DATE.**

Contact me on the details below if you have any comments or queries:

<b>Name of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

The research project has been approved by an ethics committee at Cardiff University. Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

Thank you very much for taking the time to read this letter.

Kindest Regards,

Peter D'Lima (Trainee Educational Psychologist)

***Flesch Reading Ease 30.7; Flesch Kincaid Grade Level 13.7***

## Appendix G : Informed Consent Form for EPs

School of Psychology - Cardiff University

### Informed consent form

I agree to take part in the research and understand the following:

- I understand that my participation in this research study will involve me engaging in group consultation with other educational psychologists regarding Reactive Approach Motivation (RAM) theory, personal uncertainty and how this links to the process of radicalisation.
- I understand that I will take part in one session (4 hours) of group consultation.
- I understand that the information gleaned from the consultations will be used to develop a universal, preventative programme to strengthen children's tolerance of personal uncertainty.
- I understand that I will be asked to attend an optional one-hour presentation of the programme once developed and I will be asked to evaluate the programme anonymously.
- I understand that it is the role of the researcher to collate the information gleaned from the consultations to develop the programme to be implemented in the pilot.
- I understand that the programme developed will be piloted in two secondary schools and evaluated.
- I understand that I am free to withdraw my involvement at any time
- I understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

I, \_\_\_\_\_ consent to participating in the study conducted by Peter D'Lima, School of Psychology, Cardiff University under the supervision of Andrea Higgins.

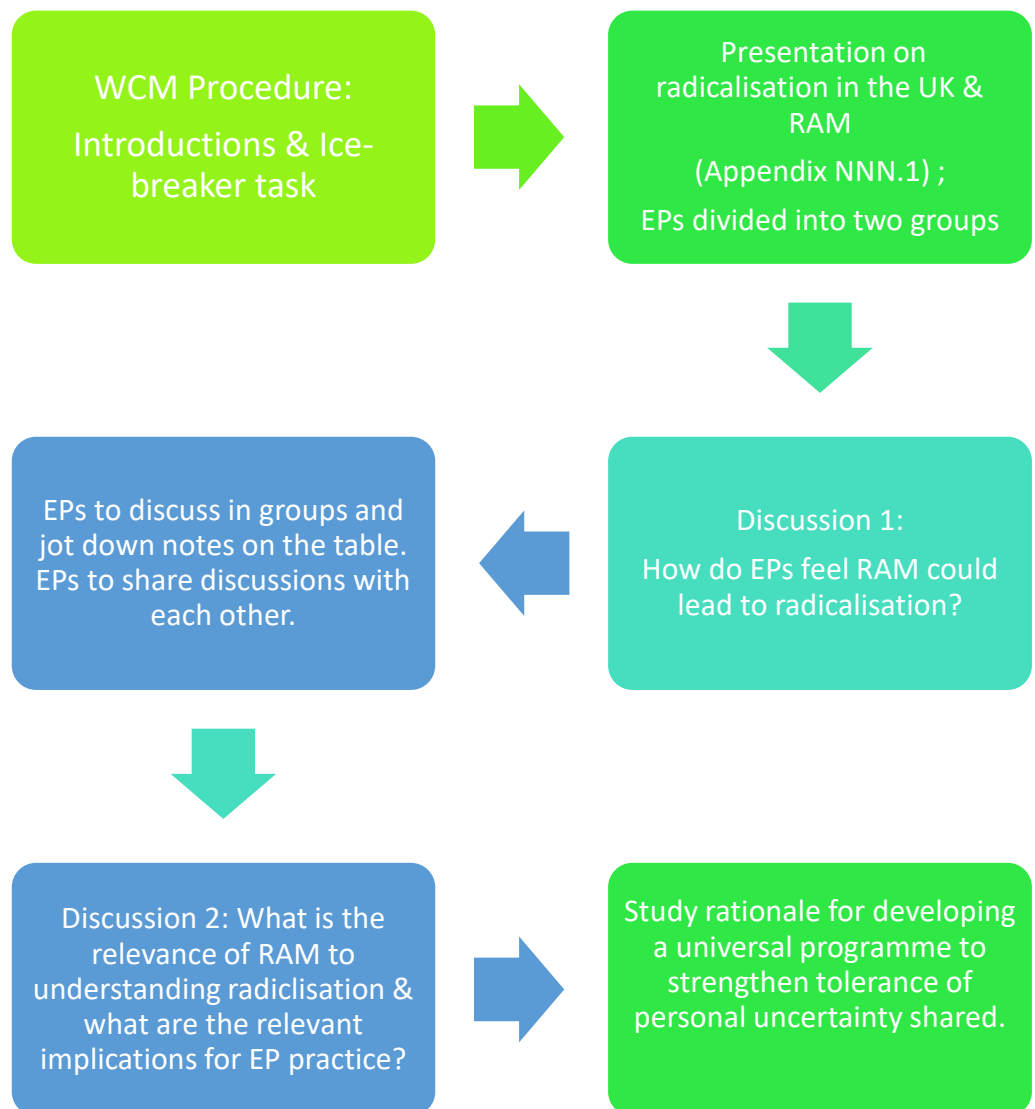
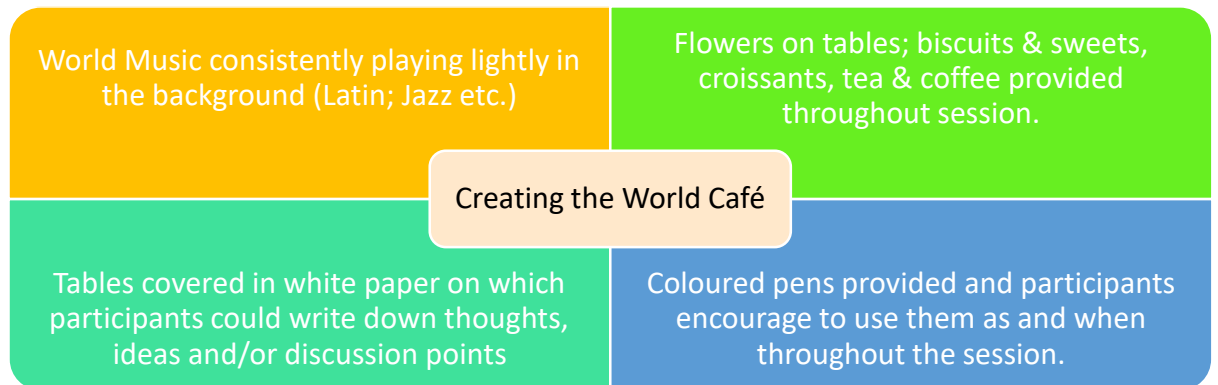
Signed:

Date:

***Flesch Reading Ease 35.8; Flesch Kincaid Grade Level 14.7***

## Appendix H: EP Working Group; Session 1- World Café Method (WCM)

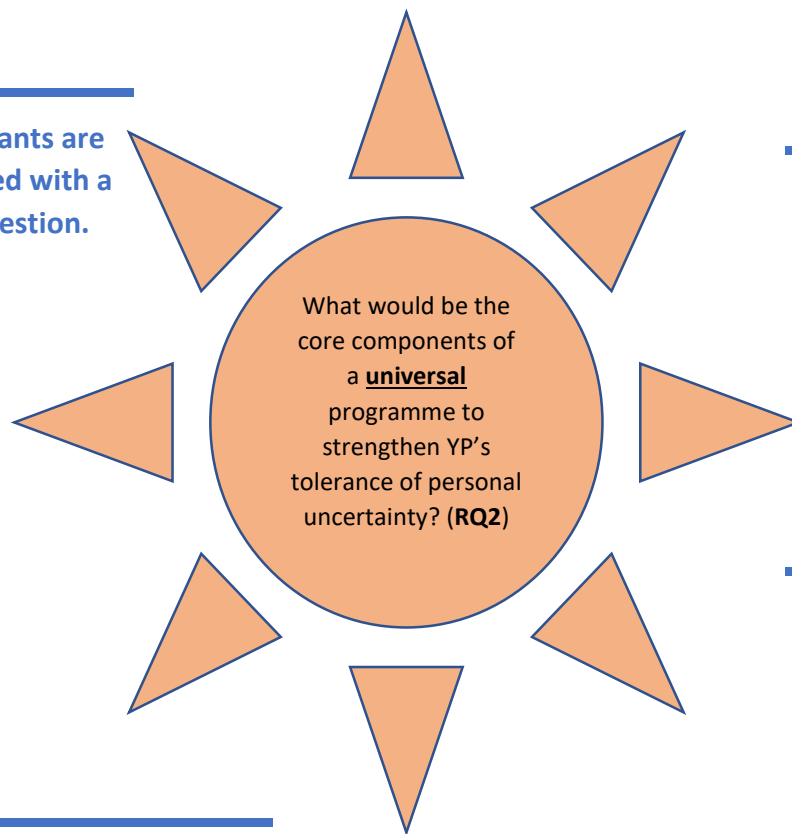
### Description



## Appendix I: EP Working Group; Session 1- Nominal Group Technique (NGT)

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Participants are presented with a key question.



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The Intolerance for Uncertainty Scale (IUSC; Comer et al., 2009) is shared with participants to clarify how tolerance of personal uncertainty will be measured in the study.

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The following procedure for the NGT is followed (Boddy, 2012)

---

### Generating Ideas:

Each person writes down as many ideas to answer a set question/topic.

### Recording Ideas:

Ideas are shared & recorded. Ideas can be consolidated if there are links or patterns between ideas.

### Discussing Ideas:

Ideas are discussed individually re: relevance & importance.

### Voting:

Participants vote regarding the following: What are the ideas that are most important and relevant to the question at hand?

Inclusion criteria for component selection by researcher following the NGT	Exclusion criteria for component selection by researcher following the NGT
<ul style="list-style-type: none"> <li>• The component must have one vote or more. Proposed components without a vote can be considered if they fit cohesively with other components that were voted for.</li> <li>• The component must be substantiated by the research literature around uncertainty or related concepts with which it has convergent validity (e.g. anxiety: see Read et al., 2013).</li> <li>• The selected components must fit together cohesively to form a theme and themes must fit together to form a cohesive programme.</li> <li>• The inclusion must be justified with reference to the literature.</li> </ul>	<ul style="list-style-type: none"> <li>• If a component does not meet the inclusion criteria.</li> <li>• If inclusion of the component would threaten the external validity of the programme by dealing with another concept that does not have convergent validity with uncertainty (e.g. growth mindset).</li> </ul>

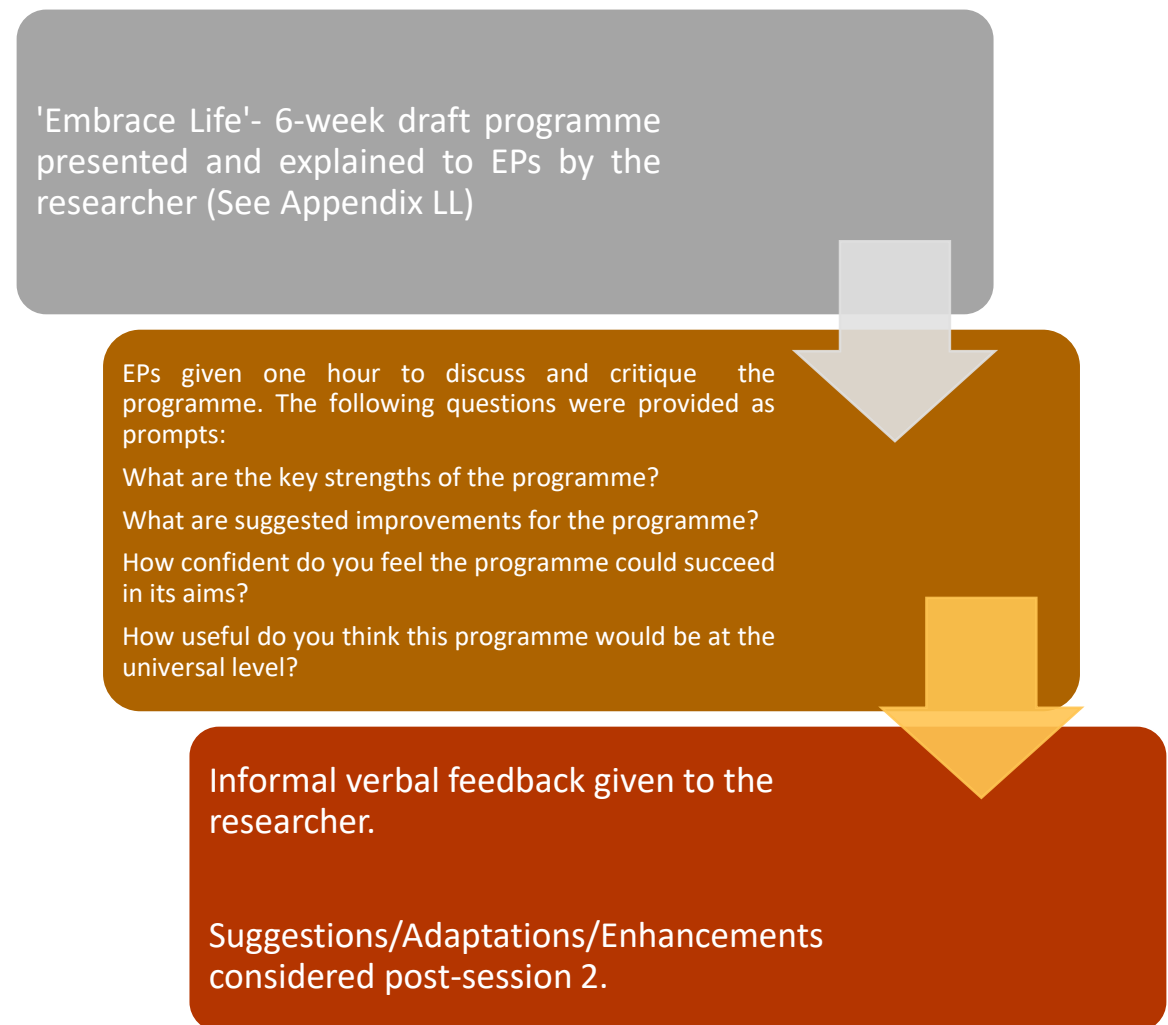
Read, K. L., Comer, J. S., & Kendall, P. C. (2013). The intolerance of uncertainty scale for children (IUSC): Discriminating principal anxiety diagnoses and severity. *Psychological Assessment*, 25(3), 722–729.



**Appendix J: Draft Version of the *Embrace Life* Programme Prepared for EP Evaluation**

*Appendix J is available on request from the researcher to protect the copyright of the Embrace Life programme.*

## Appendix K: EP Working Group; Session 2- Evaluation Procedure



## Appendix L: Debrief Forms for EPs

### Reducing vulnerability to radicalisation through the development of a universal programme to strengthen young people's tolerance of personal uncertainty

#### **Thank you so much for taking part!**

You were invited to take part in a research study which endeavoured to develop a universal programme to strengthen young people's (YP) tolerance of personal uncertainty.

The research study wanted to recruit educational psychologists to form a working group to develop this programme that would support the resilience of all YP generally whilst also potentially reducing vulnerability to radicalisation.

We explored the process of radicalisation through the lens of **Reactive Approach Motivation (RAM) theory** (McGregor et al., 2013). RAM theory proposes that on experiencing motivational conflict a person can experience personal uncertainty, which can result in anxiety or distress. Consequently, an adoption of a radical/extremist ideology may lead to a dampening of these emotions as the radical ideology provides an alternative focus that provides clarity in uncertain times (Kay & Einbach, 2013; McGregor et al., 2013).

You took part in **working group session in April 2018**. This involved an exploration of Reactive Approach Motivation (RAM) theory and its link to radicalisation. We also explored ways to strengthen YP's tolerance of personal uncertainty. Following this, we used nominal group technique to decide what the core components and the ideal mode of delivery should be for a bespoke programme to strengthen young people's tolerance of personal uncertainty.

The information and ideas gleaned from the sessions were then/ will be then used to develop a programme that is to be implemented in two pilot secondary schools.

You may have also volunteered and taken part in an evaluation of the programme that was developed. This involved you attending a presentation of the developed programme and then filling out a programme evaluation form anonymously.

For further reading:

Sewell, A., & Hulusi, H. (2016). Preventing radicalisation to extreme positions in children and young people. What does the literature tell us and should educational psychology respond? *Educational Psychology in Practice*, 32(4), 343-354.

McGregor, I., Prentice, M., & Nash, K. (2013). Anxious uncertainty and reactive approach motivation (RAM) for religious, idealistic, and lifestyle extremes. *Journal of Social Issues*, 69(3), 537-563

If you have any questions, please don't hesitate to get in touch:

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

Thanks again for taking part!

Kindest Regards,

Peter D'Lima (Trainee Educational Psychologist)

***Flesch Reading Ease 44.5; Flesch Kincaid Grade Level 11***

## **Appendix M: *Embrace Life* Programme Plan: Pilot 1**

*Appendix M is available on request from the researcher to protect the copyright of the Embrace Life programme.*

## Appendix N: Gatekeeper Letter for Headteachers

Dear Sir/Madam,

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service. **I am writing to invite you to take part in a research study regarding young people's tolerance of personal uncertainty.** The research study will be supervised by educational psychologist & professional tutor, Andrea Higgins. The research study wishes to recruit students from **Year 8** in your school.

A group of educational psychologists and I have developed **a universal programme aimed at strengthening young people's tolerance of personal uncertainty.** Poor tolerance of uncertainty can be defined as viewing uncertainty as a negative experience that is to be avoided. Personal uncertainty has been strongly linked to anxiety and worry (Osmanağaoğlu, Creswell, & Dodd, 2018) and with more rigid, inflexible thinking (McGregor et al., 2013). This research study wishes to pilot our programme in your school and evaluate the programme in the hope that it can promote resilience in young people.

### **Recruitment of young people & the method of the research**

- Research conducted with one class in Year 8 as this is a pilot project and research will be carried out at a whole-class level.
- Parent/carer consent & child assent gained.
- All young people taking part are required to fill out a confidential online questionnaire that takes approximately 20 minutes to complete, assessing their tolerance of personal uncertainty and their approach to handling uncertain situations. The questionnaire is based on recognized scales that are used with young people. Participants' scores will not be shared as they are confidential.
- All young people would then take part in a universal programme to strengthen one's tolerance of personal uncertainty delivered by a trainee educational psychologist with qualified teacher status (QTS) for 6 weeks for a maximum of 60 mins a week. The last session of the programme will involve the participants sharing some of the techniques learned with other Year 8 children in the school who receive consent to be involved and wish to take part.
- Any young people who do not wish to take part and/or do not receive parent/carer consent would need to go to another lesson or do another learning activity. This would have to be negotiated with you before the research begins.
- It would be helpful to have a member of school staff to support the programme delivery and this can be negotiated should you wish your school to take part.
- All young people taking part would complete the questionnaire three times (pre, post and 8 weeks post intervention). The post questionnaire would also include some questions about the young people's view of the programme.
- Following programme completion, three young people and two staff members involved with the programme would be randomly selected to share their views on the programme in a semi-structured interview recorded on a digital recorder. Participants will be informed of how they are randomly selected: they will all be allocated a number and a random number generator used to select the participants. Interviews will be conducted by XXXXX, educational psychologist.

- Following the completion of the programme, it would be helpful to talk to you and/or other curriculum leads about how elements of the programme could be used to enhance well-being approaches in school.
- Participants will be debriefed after completing the last questionnaire, and at the end of interview, if applicable. Children being taught techniques by the participants will be debriefed at the end of the taught session.

Participation in the research is dependent on receiving consent from the parent/carer and teaching staff & assent from the young person. All participants have the right to withdraw their information from the research at any time up until July 2018 (Pilot 1)/April 2019 (Pilot 2).

All questionnaires will be filled out confidentially on a secure online system, which can only be accessed by the researcher and the research supervisor. In July 2018 (Pilot 1)/April 2019 (Pilot 2), the data would be anonymised and after that point the data cannot be traced back to any young people or to your school. The anonymous data will be used in a research paper written by a trainee educational psychologist. You have the right to withdraw your school from the study at any time up until July 2018 (Pilot 1)/April 2019 (Pilot 2).

Similarly, you may be concerned that the views conveyed in the interviews may be traced back to the young person or staff member; however, all data is transferred to a password protected laptop and held confidentially. After 7 days the data is anonymised, and the original interview recording deleted, so no one will be able to associate the views with the participants. The anonymous interview data will also be used in a research paper written by a trainee educational psychologist. The participants have a right to withdraw their interview from the research study at any time up until 7 days after the interview takes place, as after the 7 days the interviews will be transcribed and anonymised.

**Safeguarding guidelines and policies will be followed at all times during the research.**

**If you have any questions, please do not hesitate to ask. If you would like to take part, contact me on the details below:**

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to:

Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper contactable on [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

Thank you very much for taking the time to read this letter.

Kindest Regards, Peter D'Lima Trainee Educational Psychologist

***Flesch Reading Ease 41.4; Flesch Kincaid Grade Level 12.4***



## Appendix O: Information Letter for Head of Year 8/Teaching Staff

Dear Sir/Madam,

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service. **I am writing to inform you of the research that will take place in Year 8 regarding young people's tolerance of uncertainty.** The research study will be supervised by educational psychologist & professional tutor, Andrea Higgins.

A group of educational psychologists and I have developed a **universal programme aimed at strengthening young people's tolerance of personal uncertainty.** Poor tolerance of uncertainty can be defined as viewing uncertainty as a negative experience that is to be avoided. Personal uncertainty has been strongly linked to anxiety and worry (Osmanağaoğlu, Creswell, & Dodd, 2018) and with more rigid, inflexible thinking (McGregor et al., 2013). This research study wishes to pilot our programme in your school and evaluate the programme in the hope that it can promote resilience in young people.

### Recruitment of young people & the method of the research

- Research conducted with one class in Year 8 as this is a pilot project and research to be conducted at a whole-class level.
- Parent/carers consent & child assent gained.
- All young people taking part required to fill out a confidential online questionnaire that takes approximately 20 minutes to complete, assessing their tolerance of personal uncertainty and their approach to handling uncertain situations. The questionnaire is based on recognized scales that are used with young people. Participants' scores will not be shared as they are confidential.
- All young people would then take part in a universal programme to strengthen one's tolerance of personal uncertainty delivered by a trainee educational psychologist with qualified teacher status (QTS) for 6 weeks for a maximum of 60 mins a week. The last session of the programme will involve the participants sharing some of the techniques learned with other Year 8 children in the school who receive consent to be involved and wish to take part.
- Any young people who do not wish to take part and/or do not receive parent/carers consent would need to go to another lesson or do another learning activity and this is being negotiated with the headteacher.
- It is hoped that a member of school staff will be available to support the programme delivery and this is also being negotiated with the headteacher.
- All young people taking part would complete the questionnaire three times (pre, post and 8 weeks post intervention). The post questionnaire would also include some questions about the young people's view of the programme.
- Following programme completion, three young people and two staff members involved with the programme would be randomly selected to share their views on the programme in a semi-structured interview recorded on a digital recorder. Participants will be informed of how they are randomly selected: they will all be allocated a number and a random number generator used to select the participants. Interviews will be conducted by XXXXX, educational psychologist.

- Following the completion of the programme, it would be helpful to talk to you and/or other curriculum leads about how elements of the programme could be used to enhance well-being approaches in school.
- Participants will be debriefed after completing the last questionnaire, and at the end of interview, if applicable. Children being taught techniques by the participants will be debriefed at the end of the taught session.

All questionnaires will be filled out confidentially on a secure online system, which can only be accessed by the researcher and the research supervisor. In July 2018 (Pilot 1)/April 2019 (Pilot 2) the data would be anonymised and after that point the data cannot be traced back to any young people or to your school. The anonymous data will be used in a research paper written by a trainee educational psychologist.

Similarly, you may be concerned the views conveyed in the interviews may be traced back to those participating in the interview; however, all data is transferred to a password protected laptop and held confidentially. After 7 days the data is anonymised, and the original interview recording deleted, so no one will be able to associate the views with the participant.

The anonymous interview data will also be used in a research paper written by a trainee educational psychologist. Participants have the right to withdraw their interview from the research study at any time up until 7 days after the interview takes place, as after the 7 days the interviews will be transcribed and anonymised.

Participation in the research is dependent on receiving consent from the parent/carer and teaching staff being interviewed, and assent from the young person. All participants have the right to withdraw their information from the research at any time up until July 2018 (Pilot 1)/April 2019 (Pilot 2).

**Safeguarding guidelines and policies will be followed at all times during the research.**

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

**I will be in touch to discuss the project with you. If you have any questions, please do not hesitate to ask:**

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to:

Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper contactable on [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

Thank you very much for taking the time to read this letter.

Kindest Regards, Peter D'Lima Trainee Educational Psychologist

***Flesch Reading Ease 41.4; Flesch Kincaid Grade Level 12.4***

## Appendix P: Information Letters for Parents/Carers

Dear Sir/Madam,

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service.

I am writing to invite your child to take part in a **research study about how young people deal with feeling uncertain about themselves**. The research study will be supervised by educational psychologist & professional tutor, Andrea Higgins. I would like to thank you for taking the time to read this letter and I appreciate you considering your child taking part.

A group of educational psychologists and I have developed a programme to try and help all children to deal better with feeling uncertain. Some people dislike feeling uncertain. This can make people worried and be less open to new or different ideas. This research study wants to carry out a programme with Year 8 children to help young people feel more comfortable with not being certain about things.

If you allow your child to take part and they also want to take part:

1. First, they would be asked to fill out a **confidential online questionnaire** that takes around 20 minutes to do. To keep their answers private, your child would be given a code word (e.g. dog) and they would enter this code word before doing the questionnaire, along with their age and gender. They would not enter their name. Then, they would answer questions about feeling uncertain generally and be asked about how they would deal with and feel in specific uncertain situations. Your child's answers would be kept on a secure, online system and only the researcher and the research supervisor would be able to see their answers. This means no one else will be able to link your child's answers to them. The researcher will keep a list of the codewords and who they belong to separately on a locked computer. Only the researcher has access to this list, and it will be deleted when the last questionnaire is completed.

Your child's answers **would not be shared with you** as this questionnaire on its own is not enough to explain if your child experiences significant worry and cannot be used to tell if your child has or will have difficulties in their mental health or schoolwork.

2. Then your child will take part in a **6-week intervention** that aims to make young people more comfortable with feeling uncertain. This would take place for no more than one hour a week and would be led by a trainee educational psychologist and a member of school staff.

This programme is being carried out with the whole class so your child being asked to take part has nothing to do with how they scored in the questionnaire.

3. The young people who take part in the programme would then be asked to repeat the questionnaire after the programme ends and 8 weeks later (completing the questionnaire three times in total). The post questionnaire would also include some questions about your child's view of the programme. The last session of the

programme will involve the young people sharing some of the skills they have learned with other Year 8 children in the school.

4. Young people taking part would be given information about what the research was about at the very end of the study, after they have done the questionnaire 8 weeks after the programme finishes.

Your child does not have to take part and your child has the right to withdraw their information from the research at any time up until July 2018 (Pilot 1)/April 2019 (Pilot 2). Should you choose for you child not to take part or your child does not wish to take part, your child will attend another lesson while the programme is being delivered.

Safeguarding guidelines and policies will be followed always during the research.

**If you would like your child to take part, please sign the attached consent form by XXX (DATE) & return to XXXX.**

**If you have any questions, please do not hesitate to contact me on the details below:**

<b>Names of Researcher:</b>	Peter D’Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <u>029 208 79003</u>

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

Thank you very much for taking the time to read this letter.

Kindest Regards,

Peter D’Lima Trainee Educational Psychologist

***Flesch Reading Ease 57.1; Flesch Kincaid Grade Level 10.7***

## Appendix Q: Information Letter for Young People in Year 8 Class Selected by Schools



Dear Member of Year 8,

I am a trainee educational psychologist from Cardiff University, and I am writing to tell you about some research that will be done in Year 8. The research is interested in what you think when you feel uncertain about yourself.

Some people dislike feeling uncertain about things. Feeling uncertain can make some people feel worried and can sometimes make them less open to new or different ideas.

If you wanted to take part, **you would have to do a questionnaire online during school time** about how you feel when you are unsure about things. You will also be shown some uncertain situations and asked how you might feel and deal with these difficult situations. The questionnaire will take around **30 minutes**.

After, **you would take part in a programme that tries to help young people deal with feeling uncertain**. The programme is for your whole class so taking part does not mean you have a problem, but the programme is meant to help all children in different ways.

The programme would take place **for 6 weeks during lesson time for no more than one hour per week**. In the last session of the programme, you would share some of the skills you have learned with some other Year 8s.

When the programme finishes, you would do the questionnaire again and then 8 weeks after that- a total of three times. The questionnaire after the programme would also ask what you thought about the programme. If you want to take part, sign your name on the assent form.

**Please remember, you do not have to take part in the research or do the questionnaire if you do not want to.** There is nothing wrong with not signing your name and there will be no questions asked. Even after you have signed your name, you can still decide you don't want to take part - just tell your teacher or the researcher. **If you didn't want to take part, you would join XXXXXX's lesson for that period.**

You might be worried about people knowing what you have written in the questionnaire. However, the questionnaire is private. To keep your answers private, you would be given a code word (e.g. dog) and would enter this code word before doing the questionnaire, along with your age and gender. You would not enter your name. Your answers would be kept on a secure, online system and only the researcher and the research supervisor

would be able to see the answers and know your code word. This means no one else will be able to link your answers to you. Your scores will not be shared with you as they need to be kept private for the study. It is important to know that your scores are not enough to tell me if you have or will have any difficulties in your life.

I will delete the list of codewords after you do the last questionnaire (INSERT DATE) and then no one will be able to link your codeword to you or your answers. Information from the questionnaire may be used in a psychology research paper. You can decide to take out your information from the study up until the last questionnaire is completed, just let me know.

If you would like to take part, **please sign the attached consent form and give to your teacher or the researcher**, thank you. If you have any questions, please ask your teacher or me:

<b>Names of Researcher:</b>	Peter D’Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to:

Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360 **Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

Thank you for taking the time to read this letter!

Kindest Regards, Peter D’Lima (Trainee Educational Psychologist)

***Flesch Reading Ease 72.7; Flesch Kincaid Grade Level 8.2***

## Appendix R: Informed Consent Parents/Carers (Questionnaire & Programme)

### Informed consent form

- ✓ I have read the attached information letter and understand it.
- ✓ I agree for my child to take part in this research and understand that:
  - my child will be asked to fill out a questionnaire about their experience of personal uncertainty and how he/she might deal with difficult situations
  - my child will take part in a programme after they finish the first questionnaire. This programme will take place for 6 weeks and be no longer than one hour per week.
  - the last session will involve my child sharing some of the skills learned with other Year 8 children.
  - my child does not have to take part and that I can remove my child from the study at any time without giving a reason.
  - at the end of the study my child will be given more information and told what the study was about.

I, \_\_\_\_\_ consent to my child participating in the study conducted by Peter D'Lima, School of Psychology, Cardiff University under the supervision of Andrea Higgins.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

***Flesch Reading Ease 73.5; Flesch Kincaid Grade Level 7.5***



## Appendix S: Informed Assent Forms for Young People (Questionnaire & Programme)

### Informed Assent Form

- ✓ I have read the information letter and I understand what it says.
- ✓ I agree to take part in this research study and:
  - I understand that I will complete an online questionnaire about when I feel uncertain.
  - I understand I will be shown an uncertain situation and be asked how I would feel and deal with that situation.
  - I understand that I will be asked to take part in a programme which tries to help young people deal with feeling uncertain.
  - I understand that the programme will take place once a week for 6 weeks and I would be asked to take the questionnaire again after it finishes and 8 weeks after it finishes- a total of three times.
  - I understand that the questionnaire after the programme finishes will ask me what I thought of the programme.
  - I understand that I will not be given my scores in the questionnaire.
  - I understand that I do not have to take part in the research if I do not want to and can stop being involved at any time.
  - I also understand that at the end of the research, I will be given some more information about the research study, and I can ask any questions that I have.

I, \_\_\_\_\_ agree to take part in the research project, which is being run by Peter D'Lima, trainee educational psychologist, who is from Cardiff University.

Signed:

Date: ***Flesch Reading Ease 68.7; Flesch Kincaid Grade Level 9.2***

## **Appendix T: Online Questionnaire Pilot 1; Pre-Intervention**

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**Start of Block: Pre-Info & Assent**

**Pre-Intervention IUSC**

**<https://tinyurl.com/preiusc>**

---

**Start of Block: Pre-Info & Assent**

Q1 Hello,

Please read the following information carefully. Thank you!

You are about to do an online questionnaire that takes up to 20 minutes. The questionnaire is interested in what you think when you feel uncertain about yourself.

Some people dislike feeling unsure about things. Feeling unsure can make people feel worried and can sometimes make them less open to new or different ideas.

Most questions are multiple choice, so you just have to click on the answer that is most true for you. The questionnaire is private, so you have been given a code word. You will be asked for your code word, your age and your gender. Then you will be asked to answer a set of questions about your experience of feeling uncertain. The information you give and your codes will be held privately on an online system that only the researcher and the research supervisor will be able to see or have access to.

You will not be given individual feedback about how you scored in this questionnaire, but you will be given more information about the study at the end of the research study.

After the questionnaire is complete, you will be asked to take part in a programme in your class regarding uncertainty. Being asked has nothing to do with your scores in the questionnaire and does not show that you have a difficulty with feeling uncertain. The results of the research study will be written into a research paper, however none of your personal details will be included so no one will know your views are yours. If you do not want to do the questionnaires, you don't have to. Just click: No, I do not want to do the questionnaire. If you begin and you do not want to answer some questions, just skip them. If at any time, you do not want to do the questionnaire, just stop and tell your teacher or the researcher.

This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way.

If you have any complaints about the project, contact: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 870 360 Email: psychethics@cardiff.ac.uk

- ☐ Yes, I want to do the questionnaire. (1)
- ☐ No, I do not want to do the questionnaire. (2)

**End of Block: Pre-Info & Assent**

---

**Start of Block: Personal Details**

Q2 What is your code word?

☐ Code word (1) \_\_\_\_\_

---

Q3 How old are you?

☐ 12 (1)

☐ 13 (2)

---

Q4 Gender

☐ Male (1)

☐ Female (2)

☐ Other (3) \_\_\_\_\_

**End of Block: Personal Details**

---

**Start of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

Q5

You will now read a set of statements.

How much do you agree with the statements?

Please answer truthfully, rather than answering how you think you should answer.  
Remember no one will know your answers are yours.

Being unsure means a person is mixed up.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly agree (5)
- 

Q6 Doubts stop me from having strong opinions.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q7

Not knowing what will happen in the future makes life hard.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
-

Q8 It's not fair that we can't predict the future.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q9

I can't relax if I don't know what will happen tomorrow.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q10

Not knowing what will happen in the future makes me uneasy, anxious, or stressed

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Undecided (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

---

Q11 Surprise events upset me greatly.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q12

It frustrates me to not have all of the information I need.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
-

Q13

Not knowing what could happen keeps me from enjoying life.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q14 One should always think ahead to avoid surprises.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q15

Plans can be ruined by things you didn't think would happen.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
-



Q16

When it is time to do things, not knowing what could happen keeps me from acting.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q17 Being unsure of things means that I am not great.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q18

When I am not sure of something I can't go forward.

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Undecided (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

---

Q19

When I am not sure of something I can't work very well.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q20 Other kids have less doubts than I do.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
-

Q21

Not knowing what will happen makes me unhappy or sad.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q22

I always want to know what will happen to me in the future.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q23 I don't like being taken by surprise.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
-

Q24

The smallest doubt can stop me from doing things.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q25

I should be able to prepare for everything in advance.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
-

Q26

Being unclear about things means that I am not confident.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q27

It's not fair that other kids are more sure of things.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q28

Not knowing what can happen keeps me from sleeping well.

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Undecided (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

---

Q29

I must get away from all situations where I don't know what will happen.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q30 Things that are unclear stress me.

- ☐ Strongly Disagree (1)
  - ☐ Disagree (2)
  - ☐ Undecided (3)
  - ☐ Agree (4)
  - ☐ Strongly Agree (5)
- 

Q31 I don't like being undecided about the future.

- ☐ Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Undecided (3)
- ☐ Agree (4)
- ☐ Strongly Agree (5)

**Appendix U: Online Questionnaire Pilot 1; Post-intervention**

---

**Start of Block: Post-Info & Assent**

**Post-Intervention IUSC**

**<https://tinyurl.com/postiusc>**

---

**Start of Block: Post-Info & Assent**

Q1 Hello, Please read the following information carefully. Thank you! You are about to do an online questionnaire that takes up to 20 minutes. The questionnaire is interested in what you think when you feel uncertain about yourself and your views about the programme you took part in.

Some people dislike feeling unsure about things. Feeling unsure can make people feel worried and can sometimes make them less open to new or different ideas.

Most questions are multiple choice, so you just have to click on the answer that is most true for you. Some questions ask for your opinion and you have to type in your answer. The questionnaire is private, so you have been given a code word. You will be asked for your code word, your age and your gender. Then you will be asked to answer a set of questions about your experience of feeling uncertain. The information you give and your codes will be held privately on an online system that only the researcher and the research supervisor will be able to see or have access to.

You will not be given individual feedback about how you scored in this questionnaire, but you will be given more information about the study at the end of the research study.

The results of the research study will be written into a research paper, however none of your personal details will be included so no one will know your views are yours. If you do not want to do the questionnaires, you don't have to. Just click: No, I do not want to do the questionnaire. If you begin and you do not want to answer some questions, just skip them. If at any time, you do not want to do the questionnaire, just stop and tell your teacher or the researcher.

This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way. If you have any complaints about the project, contact: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 870 360 Email: [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

- ☐ Yes, I want to do the questionnaire. (1)
- ☐ No, I do not want to do the questionnaire. (2)

---

**End of Block: Post-Info & Assent**

---

**Start of Block: Personal Details**

Q2 Please enter your code word

- ☐ Code word (1) \_\_\_\_\_
-



Q3 How old are you?

☐ 12 (1)

☐ 13 (2)

---

Q4 Gender

☐ Male (1)

☐ Female (2)

☐ Other- please write in the box (3)

---

**End of Block: Personal Details**

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**Start of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

**IUSC Questionnaire included as in Appendix T**

**Q5-31**

**End of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

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**Start of Block: Qualitative Evaluation of the programme**

Q32 You took part in a programme in your class which talked about how to deal with feeling uncertain. Think about that programme and answer the following questions.

What was your favourite activity in the programme? Why?

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Q33 What was your least favourite activity in the programme? Why?

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Q34 How useful was the programme on a scale of 1-10?

**1**= not at all useful **10**= extremely useful

- ☐ 1 (1)
  - ☐ 2 (2)
  - ☐ 3 (3)
  - ☐ 4 (4)
  - ☐ 5 (5)
  - ☐ 6 (6)
  - ☐ 7 (7)
  - ☐ 8 (8)
  - ☐ 9 (9)
  - ☐ 10 (10)
-

Q35 How much did you enjoy the programme on a scale of 1-10?

**1**= extremely unenjoyable    **10**= extremely enjoyable

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

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Q36 What were the benefits of taking part in the programme?  
(Benefits are positive, helpful and useful)

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Q37 What were the difficulties in taking part in the programme?

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Q38 How would you describe the programme to a friend?

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Q39 What did you learn from the programme?

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**End of Block: Qualitative Evaluation of the programme**

## **Appendix V: Information Letter for Parents/Carers (Semi-Structured Interviews)**

Dear Sir/Madam,

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service. You may remember that your child has been taking part in a research study which is trying to help all young people feel more comfortable with personal uncertainty. I want to thank you for allowing your child to be part of my research so far.

I am now writing to you to ask for your help with the last part of the research where I will interview three children who have been taking part in the programme

**The three children will be randomly selected to complete an interview for up to 30 minutes with XXXX XXXXX**, educational psychologist in XXXXXXXXXX educational psychology service. He/she would ask your child questions about taking part in the programme. As I created the programme, it is important that I do not carry out the interviews as I want the children to talk openly. That is why XXXXX XXXXX will carry out the interview. Should you wish your child to take part, your child would be given a number and a random number generator would be used to pick who takes part in the interview.

The interview would be recorded, transferred to a password protected laptop and the recording stored confidentially. Only the researcher would have the password. Children do not have to take part if they or you do not want them to. Also, you or your child can decide to withdraw from the study at any time.

You may be concerned your child's views could be traced back to your child; but, all interviews are stored confidentially on a locked computer. After 7 days, any of your child's personal details is taken out and the original interview recording is deleted, so no one will be able to know that these are the views of your child. The now anonymous information may be used in a research paper written by a trainee educational psychologist. The child has right to remove their interview from the research project at any time up until 7 days after the interview takes place, as after the 7 days the interviews will be written down and made anonymous.

**Safeguarding guidelines and policies will be followed at all time during the research.**

If you are happy for your child to take part, **please sign the attached consent form** and return to your school immediately, thank you. If you have any questions, please do not hesitate to ask:

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

<b>Names of Researcher:</b>	Peter D’Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

Thank you very much for taking the time to read this letter.

Kindest Regards,

Peter D’Lima

Trainee Educational Psychologist

***Flesch Reading Ease 53.8; Flesch Kincaid Grade Level 10.8***

## Appendix W: Information Letter for Young People (Semi-Structured Interviews)



Dear Member of Year 8,

I am a trainee educational psychologist from Cardiff University, and I want to thank you for taking part in the programme which looked at ways to help you deal better when feeling unsure. This is the last part of the research where you will be asked to take part in an interview where you can talk about the programme.

If you wanted to take part, you would be given a number and if your number were chosen, then you **would take part in an interview for up to 30 minutes** with XXXXXX XXXXXX, educational psychologist, and he/she would ask you **questions about the programme** and record the interview. Because I created the programme, it's important that you feel comfortable to talk freely about it and that is why another educational psychologist will ask you questions.

If you want to take part, sign your name on the assent form.

**Please remember, you do not have to take part in the interview if you do not want to.** There is nothing wrong with not signing your name and there will be no questions asked. Even after you have signed your name, you can still decide you don't want to take part - just tell your teacher.

If you are picked for interview, the interview will be recorded on a digital recorder. Then, I will put the recording onto a locked computer that only I will be able to get into as the computer has a password.

After 7 days, I will write down everything you and XXXXXX said during the interview, but I will take out your personal details which means no one else will link you to what you have said.

If you decide you don't want your views to be in the research anymore, you can tell me or your teacher up to 7 days after we have the interview. After 7 days, this won't be possible as the interview will have no link to you anymore. The information I get from the interview may be used in a psychology research paper and can be kept by Cardiff University.



If you would like to take part, **please sign the attached consent form and place in the**

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

**sealed box**, thank you. If you have any questions, please ask your teacher or me:

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT **Contact Number:** 02920 870 360 **Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

[Thank you very much for taking the time to read this letter.](#)

[Kindest Regards,](#)

**Peter D'Lima (Trainee Educational Psychologist)**

***Flesch Reading Ease 66.2; Flesch Kincaid Grade Level 9.9***

## Appendix X: Informed Consent Parents/Carers (Interview)

### Informed consent form

- ✓ I have read the attached information letter and understand it.
- ✓ I agree for my child to take part in this research and understand that:
  - my child may be selected to take part in a 30-minute interview which will ask them questions about the programme they took part in.
  - my child does not have to take part and can stop the interview at any time.
  - my child can ask any questions that he/she may have during the interview.
  - I understand that I can remove my child/my child can remove their information from this study up until 7 days after the interview, as after 7 days the interview will become anonymous and have no link to my child.
  - at the end of the study, my child will be given more information and told about what the study was about.

I, \_\_\_\_\_ consent to my child participating in the study conducted by Peter D'Lima, School of Psychology, Cardiff University under the supervision of Andrea Higgins.

Signed:

Date:

***Flesch Reading Ease 66.6; Flesch Kincaid Grade Level 9.1***

## Appendix Y: Informed Assent Forms for Young People (Interview)

### Informed Assent Form

- ✓ I have read the information letter and I understand what it says.
- ✓ I agree to take part in this research study and:
  - I understand that I **may be chosen** to take part in an interview where I will be asked to share my opinions about the uncertainty programme.
  - I understand that the interview will last for around 30 minutes, and that what I say will be recorded.
  - I understand that I do not have to take part in the research if I do not want to and can stop taking part at any time.
  - I understand that I can change my mind. I can tell my teacher that I don't want my answers to be in the study anymore up until 7 days after the interview. This is because after 7 days it will be typed up onto a computer without my name, so people won't know that what I said came from me.
  - I also understand that at the end of the interview I will be given some more information about the research project, and I can ask any questions that I have.

I, \_\_\_\_\_ agree to take part in the research project which is being run by Peter D'Lima, who is from Cardiff University.

Signed:

Date:

***Flesch Reading Ease 67.0; Flesch Kincaid Grade Level 9.0***

## Appendix Z: Semi-Structured Interview Procedure and Questions (Young Person)

<b>Step One</b>	Provide Information Letter to young person and read through with them
<b>Step Two</b>	Assent has already been gained but provide assent form again to young person and read through with them. YP signs the form if they wish to proceed. If they decline, end the interview.
<b>Step Three</b>	Verbally remind young person that: <ul style="list-style-type: none"> <li>a) they do not have to participate.</li> <li>b) they can choose not to answer any questions they don't wish to</li> <li>c) they can withdraw from the interview at any time without any issues.</li> <li>d) Their interview will be recorded but that the recording will be saved on a locked computer &amp; after 7 days, the interview will be written down and anonymized (their name/personal details removed).</li> <li>e) if, at a later stage, they decide they don't want their interview to be included in the research, they can get it removed up to 7 days after they do the interview as after this it will not be identifiable.</li> <li>f) At the end of the interview they can ask any questions they wish.</li> </ul>
<b>Step Four</b>	Ask child to share their individual views regarding the programme using these prompts: <ol style="list-style-type: none"> <li>1. <i>What do you think were the benefits of the 'Embrace Life' programme you have been doing? Benefits are helpful, useful, positive things. Let's make a list and I may ask you some more questions about what you say.</i></li> <li>2. <i>What do you think are the challenges or things that could have been improved with the programme? Challenges are difficult, tricky things that must be overcome. Let's make a list and I may ask you some more questions about what you say.</i></li> <li>3. <i>What was your favourite activity in the programme? Why?</i></li> <li>4. <i>What was your least favourite activity in the programme? Why?</i></li> <li>5. <i>What did you learn from the programme? (Show visual aid to prompt discussion if necessary)</i></li> <li>6. <i>What are your views on the Embrace booklet?</i></li> </ol>

	<p>7. <i>How would you describe the programme to a friend who didn't know about it?</i></p> <p>8. <i>How would rate this programme out of 10?</i>  <i>1 (extremely unenjoyable) -10 (extremely enjoyable)</i>  <i>1 (extremely useless)-10 (extremely useful)</i></p> <p>9. <i>Would you recommend this programme to a friend? Why?</i></p> <p>10. <i>What questions do you have about the programme?</i></p>
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Visual Aid for Question 5



## Appendix AA: Informed Consent Teaching Staff

### School of Psychology - Cardiff University

#### Informed consent form

- ✓ I have read the attached information letter and understand the content.
- ✓ I agree to take part in this research and understand the following:
  - I understand that I **may be selected** to take part in a short interview my views regarding the Uncertainty Programme that Year 8 children were involved in.
  - I understand that the interview will last around 30 minutes and my voice will be recorded on a digital recorder.
  - I understand that I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason.
  - I understand that I can withdraw my data from this study up until 7 days after the interview, as after 7 days the interview will become anonymous and have no link to me.
  - I understand that I am free to ask any questions at any time.
  - I also understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

I, \_\_\_\_\_ give consent to participate in the study conducted by Peter D'Lima, School of Psychology, Cardiff University under the supervision of Andrea Higgins.

Signed:

Date:

***Flesch Reading Ease 46.8; Flesch Kincaid Grade Level 12.3***

**Appendix BB: Semi-Structured Interview Procedure and Questions (Staff Member)**

<b>Step One</b>	Provide Information Letter to the staff member and read through with them
<b>Step Two</b>	Consent has already been gained but provide consent form again to the staff member and read through with them. Ask them if they want to still take part and get them to sign. If they decline, end interview.
<b>Step Three</b>	Verbally remind the staff member that: <ul style="list-style-type: none"> <li>a) they do not have to participate</li> <li>b) they can choose not to answer any questions they don't wish to</li> <li>c) they can withdraw from the interview at any time without any issues</li> <li>d) their interview will be recorded but that the recording will be saved on a locked computer &amp; after 7 days, the interview will be written down and anonymized (their name/personal details removed)</li> <li>e) if, at a later stage, they decide they don't want their interview to be included in the research, they can get it removed up to 7 days after they do the interview as after this it will not be identifiable.</li> <li>f) That at the end of the interview they can ask any questions they wish.</li> </ul>
<b>Step Four:</b>	Ask the staff member to share their individual views regarding the programme using these prompts: <ol style="list-style-type: none"> <li>1. <i>What is your understanding of the 'Embrace Life' programme and its purpose?</i></li> <li>2. <i>What do you think were the benefits of the programme for the young people involved?</i></li> <li>3. <i>What do you think were the difficulties the young people involved faced in relation to programme?</i></li> <li>4. <i>What were the benefits for you being involved in the programme?</i></li> <li>5. <i>What were the challenges for you being involved in the programme?</i></li> <li>6. <i>What was your favourite element of the programme? Why?</i></li> <li>7. <i>What was your least favourite element in the programme? Why?</i></li> <li>8. <i>How do you feel students perceived the programme?</i></li> <li>9. <i>How do you think the programme could be improved?</i></li> </ol>



	<p><i>10. How would rate this programme out of 10?</i></p> <p><i>1(extremely unenjoyable for YP) -10 (extremely enjoyable for YP)</i></p> <p><i>1(extremely useless for YP)-10 (extremely useful for YP)</i></p> <p><i>11. Would you recommend this programme to another year group? Why? Or why not?</i></p> <p><i>12. What questions/comments do you have about the programme?</i></p>
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**Appendix CC: Online Questionnaire Pilot 1; 8-Weeks Post-Intervention**  
**8-Week Post IUSC**

<https://tinyurl.com/8wkpostiusc>

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**Start of Block: Post-Information Letter**

Q1

Hello, Please read the following information carefully. Thank you! You are about to do an online questionnaire that takes up to 20 minutes. The questionnaire is interested in what you think when you feel uncertain about yourself.

Some people dislike feeling unsure about things. Feeling unsure can make people feel worried and can sometimes make them less open to new or different ideas.

Most questions are multiple choice, so you just have to click on the answer that is most true for you.

The questionnaire is private so you have been given a code word. You will be asked for your code word, your age and your gender. Then you will be asked to answer a set of questions about your experience of feeling uncertain. The information you give and your code word will be held privately on an online system that only the researcher and the research supervisor will be able to see or have access to.

You will not be given individual feedback about how you scored in this questionnaire, but you will be given more information about the study at the end of the research study.

The results of the research study will be written into a research paper, however none of your personal details will be included so no one will know your views are yours. If you do not want to do the questionnaires, you don't have to. Just click: No, I do not want to do the questionnaire. If you begin and you do not want to answer some questions, just skip them. If at any time, you do not want to do the questionnaire, just stop and tell your teacher or the researcher.

This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way. If you have any complaints about the project, contact: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 870 360 Email: [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

- ☐ Yes, I want to do the questionnaire. (1)
- ☐ No, I do not want to do the questionnaire. (2)

**End of Block: Post-Information Letter**

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**Start of Block: Personal Details**

Q2 Please enter your code word

☐ Code word (1) \_\_\_\_\_

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Q3 How old are you?

☐ 12 (1)

☐ 13 (2)

---

Q4 Gender

☐ Male (1)

☐ Female (2)

☐ Other- Please write in the box (3)

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**End of Block: Personal Details**

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**Start of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

**IUSC Questionnaire included as in Appendix T**

**Q5-31**

**End of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

---

**Start of Block: Debrief Form**

**Q32   Research Study Title**

The implementation and evaluation of a universal programme to strengthen young people's tolerance of personal uncertainty.

**You have finished! Please read, scroll down and tick the button at the bottom of the page!**

Thank you so much for your time and patience.    You took part in a programme in your class. The aim was to see if the programme could help you to be more comfortable with feeling uncertain.

The questionnaire checked how you felt about being uncertain before and after the programme.

Research has shown that people who have difficulties with feeling uncertain can feel worried. This can also mean they are less open to new or different ideas.    Remember, all your answers are private so that means that only the researcher and the research supervisor will know your answers are yours.

The programme was for your whole class so taking part does not mean you have a problem as the programme is meant to help all children in different ways. It may help some with feeling uncertain and it may help some to be more open to new or different ideas.    Information from the questionnaire may be used in a psychology research paper, but your personal details will not be used.

If you want more information about feeling uncertain, these are some useful websites:  
<http://youth.anxietybc.com/anxiety-101>

<https://www.getselfhelp.co.uk/docs/APPLE2.pdf>

If you have any questions or worries as a result of doing this questionnaire, ask your teacher or contact me or the research supervisor on:

Names of Researcher: Peter D'Lima

Address: School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT.

Contact Number: 02920876497    Email: [DlimaP@cardiff.ac.uk](mailto:DlimaP@cardiff.ac.uk)

Supervised by: Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT.

Email: [HigginsA2@cardiff.ac.uk](mailto:HigginsA2@cardiff.ac.uk)    Phone: 029 208 79003

This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way.

If you have any complaints about the project, contact:

Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT    Contact Number: 02920 870 360    Email: [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

☐ I have read the debrief form and I am ready to finish. (1)

**End of Block: Debrief Form**

## **Appendix DD: Debrief Forms for Young People (Questionnaire + Programme)**

### The implementation and evaluation of a universal programme to strengthen young people's tolerance of personal uncertainty.

#### **Thank you for taking part in this study and for your time and patience!**

You took part in a programme in your class. The aim was to see if the programme could help you to be more comfortable with feeling uncertain.

The questionnaire was trying to understand:

- how you felt about being uncertain before and after the programme.
- how confident and comfortable you felt coping with difficult situations before and after the programme.
- What ways you used to cope before and after the programme took place
- What you thought about the programme

Research has shown that people who have difficulties with feeling uncertain can feel worried. This can also mean they are less open to new or different ideas.

Remember, all your answers are private so that means that only the researcher and the research supervisor will know your answers are yours.

The programme was for your whole class so taking part does not mean you have a problem as the programme is meant to help all children in different ways. It may help some with feeling uncertain and it may help some to be more open to new or different ideas and deal with difficult situations better.

Information from the questionnaire may be used in a psychology research paper, but your personal details will not be used.

If you want more information about feeling uncertain, these are some useful websites:

<http://youth.anxietybc.com/anxiety-101>

<https://www.getselfhelp.co.uk/docs/APPLE2.pdf>

If you have any questions or anything worried you about this research, please ask or tell your teacher or me:

<b>Names of Researcher:</b>	Peter D’Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: HigginsA2@cardiff.ac.uk Phone: 029 208 79003

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT  
Contact Number: 02920 870 360 Email: [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you provide is consent.

Thanks again for taking part!

Kindest Regards,

Peter D’Lima (Trainee Educational Psychologist)

***Flesch Reading Ease 57.3; Flesch Kincaid Grade Level 9.6***

## **Appendix EE: Debrief Forms for Young People (Semi-Structured Interview)**

The implementation and evaluation of a universal programme to strengthen young people's tolerance of personal uncertainty.

### **Thank you for taking part in this study.**

You took part in a programme in your class. The aim was to see if the programme could help you to be more comfortable with feeling uncertain.

Research has shown that people who have difficulties with feeling uncertain can feel worried. This can also mean they are less open to new or different ideas.

You took part in an interview with XXXXXX where you were asked questions about the programme. This is very helpful because it can help us to improve the programme and make it better.

The interview was recorded on a digital recorder. Then, the recording will be put on a locked computer that only I will be able to get into as the computer has a password. After 7 days, I will write down everything you and XXXXXX said during the interview, but I will take out your personal details which means no one else will link you to what you have said. If you would like me to take your information out of the study, you can do this up to 7 days after interview.

If you want more information about uncertainty, these are some useful websites:

<http://youth.anxietybc.com/anxiety-101>

<https://www.getselfhelp.co.uk/docs/APPLE2.pdf>

If you have any questions, please ask your teacher or Peter (the researcher):

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

Thanks again for taking part!

Kindest Regards,



Peter D’Lima (Trainee Educational Psychologist)

<b>Names of Researcher:</b>	Peter D’Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <u>029 208 79003</u>

*Flesch Reading Ease 68.9; Flesch Kincaid Grade Level 7.3*

## **Appendix FF: Debrief Forms for Teaching Staff**

The implementation and evaluation of a universal programme to strengthen young people’s tolerance of personal uncertainty.

**Thank you for taking part in this study.**

The aim of the research was to investigate if a programme designed to help young people deal with personal uncertainty was effective. This was achieved by assessing how the young people involved felt about personal uncertainty before and after the programme to see if the programme had an effect.

The research study proposes that the programme could make young people more resilient

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

generally. The research study also proposes that by helping young people deal better with personal uncertainty we may also prevent young people from having a lack of flexibility in their thinking.

Research has shown that people who have difficulty coping with uncertainty can feel anxious or worried (Osmanağaoğlu, Creswell, & Dodd, 2018) and this is linked to having rigid, inflexible thinking (McGregor et al., 2013).

You took part in an interview where you were asked your views on the benefits and challenges of the programme. You were asked because you were involved with and/or attended the programme. You were also asked about your views about the programme generally. This is very helpful because it can help us to improve the programme and make it better.

The conversation you had with the interviewer was recorded and is kept on a locked computer that only I can get into. All your information will be held confidentially before it is transcribed. Our interview will be transcribed 7 days after the interview and at this point, the data will be anonymised. If you would like me to take your views out of the study, you can do this up to 7 days after interview.

If you have any questions, please don't hesitate to contact Peter (the researcher) or the research supervisor:

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

Thanks again for taking part!

Kindest Regards,

Peter D'Lima (Trainee Educational Psychologist)

***Flesch Reading Ease 61.5; Flesch Kincaid Grade Level 9.4***

## Appendix GG: Reflections on and Changes to Pilot 1 Informed by Experience of Delivery and Pilot 1 Qualitative Evaluation

Issues arising from Pilot 1	Reflections/Potential Solutions	Changes Implemented for Pilot 2
<p><b>Tasks that were improved/removed from Pilot 1</b></p>	<p>This was a result of researcher experience of delivering the programme and participant responses during programme delivery.</p> <p>Changes implemented endeavoured to strengthen the programme.</p>	<p><b>Session 1:</b> No change</p> <p><b>Session 2:</b> No change</p> <p><b>Session 3:</b></p> <p>‘The awkward text’ was changed to a male protagonist dealing with a friendship difficulty as Pilot 2 participants were all males.</p> <p>In Pilot 1, participants had to label potential positive and negative thoughts in relation to the ‘awkward text’ scenario. The language was changed to ‘helpful’ and ‘unhelpful’ thoughts as this was more in keeping with reflecting on how useful certain thoughts were in helping them to be assertive, which was dealt with later on in the programme.</p> <p>In Pilot 1, a ‘head-basket’ was used to facilitate the labelling of positive and negative thoughts. Participants threw balls representing varying thoughts into the basket. This was removed in Pilot 2 as it appeared to distract from the purpose of the activity in Pilot 1.</p> <p>In Pilot 2, some slides were added in discussing the differences between acceptance and avoidance in more depth as this was something that participants in Pilot 1 struggled with (See Appendix SS).</p> <p><b>Session 4:</b></p>

		<p>Pilot 1 ‘Post-it Assertiveness’ task was removed as participants in Pilot 1 got distracted by placing post-its on their heads etc. and it was deemed non-essential to achieving the learning objective of that session.</p> <p><b>Session 5:</b> The headlines used to rouse uncertainty were altered for Pilot 2. The grammar school context meant that exams and GCSEs were associated with a lot of uncertainty for YP and thus, this GCSE changes were the topic of the headlines.</p> <p><b>Session 6:</b></p> <p>In Pilot 1, participants did not have the opportunity to teach the skills learned to another class. They taught the skills to each other. They taught the mindfulness task/ the ice-cube task/ the finger trap task/ the chocolate buttons decision task</p> <p>In Pilot 2, participants taught skills to another Year 8 class. They taught the mindfulness task/ the Malteaser task/ the finger trap task/ the chocolate buttons decision task</p>
<b>Clarity; children not understanding the purpose of tasks/activities</b>	Ensure clarification of the purpose of activities and how the activities can help in real-life.	Embrace booklet/presentation had clear outcome printed for each task/activity (See Appendix SS)
<b>Time; not having enough time to complete tasks</b>	Request more time	Time per session was increased in Pilot 2 Pilot 1- 40 mins Pilot 2- 60 mins
<b>Mindfulness being rushed at the end of session</b>	Request more time  Re-position mindfulness to the beginning of the session	Time per session was increased in Pilot 2 Pilot 1- 40 mins Pilot 2- 60 mins

		The mindfulness technique was re-positioned to the beginning of the session to ensure that it was conducted with calm, even if other tasks and activities ran over. Furthermore, the Pilot 1 class were very animated and it was felt that mindfulness at the beginning of the session could be useful in Pilot 2 to begin the session with a sense of calm.
<b>Use of a soft toy brain as a motivator for group discussion; some children afraid to answer</b>	<p>‘Heads down, thumbs up or down’</p> <p>At the start of the programme, ask children to provide their assent to answer questions using the soft toy brain. If they do not wish to use this, they should show a thumbs down. If they change their mind at any time, they can inform me privately. In this way, this can still engage those who enjoy it and those that are worried about catching it can still answer questions.</p>	<p>‘Heads down, thumbs up or down’ was used for Pilot 2.</p> <p>One child opted out of using the soft brain toy and this was respected throughout sessions.</p>
<b>Sharing intimate details; anxiety related to answering questions</b>	<p>This is a valid concern and is one that can only be remedied through ensuring that the group is a safe space where all feelings are valued.</p> <p>Ensure children are aware that there is an Opt-out. Take about this explicitly</p>	The voluntary nature of contributing was reiterated every session in Pilot 2.

	that they can always pass if they do not feel comfortable answering a question.	
<b>Group working</b>	Go through principles of good group working and assign roles so that there is more clarity.	No changes. Group working was not an issue in Pilot 2.
<b>Not discussing mental-health related topics specifically (e.g. psychoeducation on depression)</b>	<p>Re-iterate what the programme is and its purpose and also what it is NOT.</p> <p>It is not a programme that can rid someone of problems, anxiety or depression instantly.</p> <p>It is a programme that can help people learn skills that may be useful in dealing with many different difficulties.</p>	Programme contained a more detailed pre-session in which the programme was explained carefully, distinguishing what the programme is and is not (See Appendix TT)
<b>Reflection section at the end of each session had no scaffold and was not used by any students at home.</b>	Provide scaffold.	The following questions were added on each reflection page: What did you enjoy about the session? What was difficult about the session? What did you learn about the session?
<b>Staff worrying about how the learning could continue once the</b>	Arrange meeting with staff post-programme to discuss evaluation.	Meeting arranged with all staff involved and Year 8 leader to discuss evaluation post-programme and ways forward discussed.

<b>programme had finished.</b>		
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**Appendix HH: Information Letters for Parents/Carers of Year 8 Students Who Will Be Taught Techniques by the Year 8s Currently Participating in the Programme**

Dear Parent/Carer,

I am a trainee educational psychologist attending Cardiff University and on placement in the XXXX Educational Psychology Service.

A Year 8 class in XXXXX school have been taking part in a programme aimed at helping them deal better when they feel uncertain or unsure about things. This programme is called 'Embrace Life' and was developed by a group of educational psychologists and myself, under the supervision of educational psychologist & professional tutor, Andrea Higgins.

Within this programme, the class have learned techniques that will help them deal better with uncertainty. Part of this programme involves them sharing these techniques with other students as this can help them to understand the techniques more and can also help their fellow students deal better with uncertainty.

Your child's class has been chosen to benefit from being shown these techniques by those Year 8 pupils who have been involved in the study.

If you consented for your child to take part, they would spend a lesson (60 minutes) learning techniques that can help children accept uncertainty as a normal part of life. This would be delivered by the Year 8 pupils who have taken in 'Embrace Life' and examples are outlined below:

**Finger Trap Task**

involves getting the child to think of a difficult situation and placing their finger in a Chinese finger trap toy to explain the concept of acceptance of feelings instead of avoiding feelings.

**Mindful Eating Task**

Involves the children being guided to attend to the experience of eating and notice thoughts, feelings, sensations throughout.

**6- step decision plan & chocolate buttons task**

involves children using a 6-step problem solving plan to decide how to share an unequal amount of chocolate buttons

The session will be supervised by Mrs. XXXX, and myself, a trainee educational psychologist.

Participation is voluntary meaning your child does not have to take part. Should you choose for you child not to take part or your child does not wish to take part, then he /she will go to another class during this lesson time.

Safeguarding guidelines and policies will be always followed during the research. The research will be written in a psychology research paper, but all details will be anonymous. It will not be possible to link your child's personal details or involvement to the research.

**If you would like your child to take part, please sign the attached consent form by XXX (DATE) & return to XXXX.**

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

**Any questions in the meantime, do not hesitate to contact me on the details below:**

The research project has been approved by an ethics committee at Cardiff University. Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

Thank you very much for taking the time to read this letter.

Kindest Regards, Peter D'Lima Trainee Educational Psychologist

***Flesch Reading Ease 54.5; Flesch Kincaid Grade Level 10.5***

## **Appendix II: Information Letter for Young People Being Taught Skills to Manage Uncertainty**

Dear Member of Year 8,

I am a trainee educational psychologist from Cardiff University, and I am writing to tell you about some research that is being done in another Year 8 class in your school.

Some people dislike feeling uncertain about things. Feeling uncertain can make some people feel worried and can sometimes make them less open to new or different ideas. Another Year 8 class in your school have been taking part in a programme called 'Embrace Life'. 'Embrace Life' is all about helping people deal better when they feel uncertain about things.

Your class has been chosen to do some tasks that may help when you feel uncertain. They are fun and interesting tasks and will be led by the Year 8 class taking part in 'Embrace Life'. The tasks will happen in form time.

The research will be part of a psychology research paper, but it will not be possible to link you or your personal details (name, age, etc.) to this research.

You do not have to take part. If you choose not to do so, you will go to another class during this lesson. If you do want to take part, **please sign the attached consent form**. If you have any questions, please contact me on the information below:

<b>Names of Researcher:</b>	Peter D'Lima
<b>Address:</b>	School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT
<b>Contact Number:</b>	02920 876497
<b>Email:</b>	<a href="mailto:DlimaP@cardiff.ac.uk">DlimaP@cardiff.ac.uk</a>
<b>Supervised by:</b>	Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: <a href="mailto:HigginsA2@cardiff.ac.uk">HigginsA2@cardiff.ac.uk</a> Phone: <a href="tel:02920879003">029 208 79003</a>

The research project has been approved by an ethics committee at Cardiff University.

Any complaints should be made to: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT

**Contact Number:** 02920 870 360

**Email:** [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper [CooperM1@cardiff.ac.uk](mailto:CooperM1@cardiff.ac.uk). The lawful basis for the processing of the data you or children provide is consent.

Thank you very much for taking the time to read this letter.

Kindest Regards, Peter D'Lima Trainee Educational Psychologist

**Appendix JJ: Informed Consent for Parents/Carers of Young People Being Taught Skills to Manage Uncertainty**

Informed consent form

- ✓ I have read the attached information letter and understand it.
- ✓ I agree for my child to take part in this research and understand that:
  - Other Year 8 students will share techniques they have been learning in the 'Embrace Life' programme and that this will involve tasks that focus on helping children deal better with feeling uncertain about things.

I, \_\_\_\_\_ consent to my child

\_\_\_\_\_ participating in the study conducted by Peter D'Lima, School of Psychology, Cardiff University under the supervision of Andrea Higgins.

Signed: \_\_\_\_\_  
\_\_\_\_\_

Date:

**Please return consent form by XXXX 2018 to XXXXXX**

## **Appendix KK: Informed Assent for Young People Being Taught Skills**

### Informed Assent Form

- ✓ I have read the information letter and I understand what it says.
- ✓ I agree to take part in this research study and:
  - I understand that I will be taught ways of dealing better with feeling uncertain in one form time session.
  - I understand that I do not have to take part in the research if I do not want to and can stop being involved at any time.

I, \_\_\_\_\_ agree to take part in the research project, which is being run by Peter D'Lima, trainee educational psychologist, who is from Cardiff University.

Signed:

Date:

**Appendix LL: Online Questionnaire Pilot 2; Pre-Intervention**

**Pre-Intervention IUSC & Vignette**

**<https://tinyurl.com/preiuscv>**

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**Start of Block: Pre-Info & Assent**

Q1 Hello, please read the following information carefully. Thank you! You are about to do an online questionnaire that takes up to 20 minutes. The questionnaire is interested in how you feel when you are unsure about things. You will answer questions about feeling uncertain. You will also be shown some uncertain situations and asked how you might feel and deal with these difficult situations.

Some people dislike feeling unsure about things. Feeling unsure can make people feel worried and can sometimes make them less open to new or different ideas.

Most questions are multiple choice, so you just have to click on the answer that is most true for you. The questionnaire is private, so you have been given a code word. You will be asked for your code word, your age and your gender. Then you will be asked to answer a set of questions about your experience of feeling uncertain.

The information you give and your codes will be held privately on an online system that only the researcher and the research supervisor will be able to see or have access to. You will not be given individual feedback about how you scored in this questionnaire, but you will be given more information about the study at the end of the research study.

After the questionnaire is complete, you will be asked to take part in a programme in your class regarding uncertainty. Being asked has nothing to do with your scores in the questionnaire and does not show that you have a difficulty with feeling uncertain. The results of the research study will be written into a research paper, however none of your personal details will be included so no one will know your views are yours. If you do not want to do the questionnaires, you don't have to. Just click: No, I do not want to do the questionnaire. If you begin and you do not want to answer some questions, just skip them. If at any time, you do not want to do the questionnaire, just stop and tell your teacher or the researcher. This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way. If you have any complaints about the project, contact: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 870 360 Email: [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

- ☐ Yes, I want to do the questionnaire. (1)
- ☐ No, I do not want to do the questionnaire. (2)

**End of Block: Pre-Info & Assent**

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**Start of Block: Personal Details**



Q2 What is your code word?

☐ Code word (1) \_\_\_\_\_

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Q3 How old are you?

☐ 12 (1)

☐ 13 (2)

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Q4 Gender

☐ Male (1)

☐ Female (2)

☐ Other (3) \_\_\_\_\_

**End of Block: Personal Details**

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**Start of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

**IUSC Questionnaire included as in Appendix T**

**Q5-31**

**End of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

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**Start of Block: Vignette (Academic)**

Q32

Please read the situation below and imagine that it is happening to you. Then, answer the following questions. Please answer truthfully, rather than answering how you think you should answer. Remember no one will know your answers are yours.

*You were absent last week when the teacher told your class about an important test.  
You have just found out that the test is tomorrow morning and you haven't prepared.*

What would you do to help deal with this situation?

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Q33

How confident do you feel dealing with this situation on a scale of 1-10?

**1**= Not at all confident    **10**= Extremely confident

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

**End of Block: Vignette (Academic)**

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**Start of Block: Vignette (Social)**

Q34 Please read the situation below and imagine that it is happening to you. Then, answer the following questions. Please answer truthfully, rather than answering how you think you should answer. Remember no one will know your answers are yours.

***Your friend has stopped talking to you. Every time you see your friend, they walk away. You don't know what you have done.***

What would you do to help deal with this situation?

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Q35

How confident do you feel dealing with this situation on a scale of 1-10?

**1=** Not at all confident **10=** Extremely confident

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

**End of Block: Vignette (Social)**

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**Appendix MM: Online Questionnaire Pilot 2; Post-Intervention**

**Post-Intervention IUSC & Vignette**

**<https://tinyurl.com/postiuscv>**

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**Start of Block: Post-Info & Assent**

Q1 Hello, please read the following information carefully. Thank you! You are about to do an online questionnaire that takes up to 20 minutes. The questionnaire is interested in how you feel when you are unsure about things and your views about the Embrace Life programme you took part in. You will also be shown some uncertain situations and asked how you might feel and deal with these difficult situations.

Some people dislike feeling unsure about things. Feeling unsure can make people feel worried and can sometimes make them less open to new or different ideas.

Most questions are multiple choice, so you just have to click on the answer that is most true for you. Some questions ask for your opinion and you have to type in your answer. The questionnaire is private, so you have been given a code word. You will be asked for your code word, your age and your gender. Then you will be asked to answer a set of questions about your experience of feeling uncertain. The information you give and your codes will be held privately on an online system that only the researcher and the research supervisor will be able to see or have access to.

You will not be given individual feedback about how you scored in this questionnaire, but you will be given more information about the study at the end of the research study.

The results of the research study will be written into a research paper, however none of your personal details will be included so no one will know your views are yours. If you do not want to do the questionnaires, you don't have to. Just click: No, I do not want to do the questionnaire. If you begin and you do not want to answer some questions, just skip them. If at any time, you do not want to do the questionnaire, just stop and tell your teacher or the researcher.

This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way. If you have any complaints about the project, contact: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 870 360 Email: psychethics@cardiff.ac.uk

- ☐ Yes, I want to do the questionnaire. (1)
- ☐ No, I do not want to do the questionnaire. (2)

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**End of Block: Post-Info & Assent**

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**Start of Block: Personal Details**

Q2 Please enter your code word

☐ Code word (1) \_\_\_\_\_

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Q3 How old are you?

☐ 12 (1)

☐ 13 (2)

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Q4 Gender

☐ Male (1)

☐ Female (2)

☐ Other- please write in the box (3)

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**End of Block: Personal Details**

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**Start of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

**IUSC Questionnaire included as in Appendix T**

**Q5-31**

**End of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

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**Start of Block: Vignette Academic**

Q32

Please read the situation below and imagine that it is happening to you. Then, answer the following questions. Please answer truthfully, rather than answering how you think you should answer. Remember no one will know your answers are yours.

***You are usually able to understand new things in lessons. However, you have a new teacher and you just aren't understanding things in the same way.***

What would you do to help deal with this situation?

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Q33

How confident do you feel dealing with this situation on a scale of 1-10?

**1=** Not at all confident   **10=** Extremely confident

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

**End of Block: Vignette Academic**

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**Start of Block: Vignette Social**

Q34 Please read the situation below and imagine that it is happening to you. Then, answer the following questions. Please answer truthfully, rather than answering how you think you should answer. Remember no one will know your answers are yours.

***You've arranged to meet a person you like in your year group. They've said they will go to the cinema with you, but another friend has said they aren't going to show up. (Post)***

What would you do to help deal with this situation?

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Q35

How confident do you feel dealing with this situation on a scale of 1-10?

**1=** Not at all confident **10=** Extremely confident

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

**End of Block: Vignette Social**

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**Start of Block: Qualitative Evaluation of the programme**

Q36 You took part in a programme in your class which talked about how to deal with feeling uncertain. The programme was called 'Embrace Life'. Think about that programme and answer the following questions.

What was your favourite activity in the programme? Why?

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Q37 What was your least favourite activity in the programme? Why?

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Q38 How useful was the programme on a scale of 1-10?

**1**= not at all useful **10**= extremely useful

- ☐ 1 (1)
  - ☐ 2 (2)
  - ☐ 3 (3)
  - ☐ 4 (4)
  - ☐ 5 (5)
  - ☐ 6 (6)
  - ☐ 7 (7)
  - ☐ 8 (8)
  - ☐ 9 (9)
  - ☐ 10 (10)
-

Q39 How useful was the programme on a scale of 1-10?

**1**= not at all useful **10**= extremely useful

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

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Q40 What were the benefits of taking part in the programme?  
(Benefits are positive, helpful and useful)

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Q41 What were the difficulties in taking part in the programme?

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Q42 How would you describe the programme to a friend?

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Q43 What did you learn from the programme?

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**End of Block: Qualitative Evaluation of the programme**

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**Appendix NN: Online Questionnaire Pilot 2; 8-Week Post- Intervention  
8 Wk Post-Intervention IUSC & Vignette**

**<https://tinyurl.com/8wkspostiv>**

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**Start of Block: Post-Information Letter**

## Q1

Hello, please read the following information carefully. Thank you! You are about to do an online questionnaire that takes up to 20 minutes. The questionnaire is interested in how you feel when you are unsure about things. You will answer questions about feeling uncertain. You will also be shown some uncertain situations and asked how you might feel and deal with these difficult situations.

Some people dislike feeling unsure about things. Feeling unsure can make people feel worried and can sometimes make them less open to new or different ideas.

Most questions are multiple choice, so you just have to click on the answer that is most true for you.

The questionnaire is private, so you have been given a code word. You will be asked for your code word, your age and your gender. Then you will be asked to answer a set of questions about your experience of feeling uncertain. The information you give, and your code word will be held privately on an online system that only the researcher and the research supervisor will be able to see or have access to.

You will not be given individual feedback about how you scored in this questionnaire, but you will be given more information about the study at the end of the research study.

The results of the research study will be written into a research paper, however none of your personal details will be included so no one will know your views are yours. If you do not want to do the questionnaires, you don't have to. Just click: No, I do not want to do the questionnaire. If you begin and you do not want to answer some questions, just skip them. If at any time, you do not want to do the questionnaire, just stop and tell your teacher or the researcher.

This research project has been approved by an ethics committee at Cardiff University. They make sure that the research project is carried out in a fair, sensible and respectful way. If you have any complaints about the project, contact: Secretary of the Ethics Committee, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 870 360 Email: [psychethics@cardiff.ac.uk](mailto:psychethics@cardiff.ac.uk)

☐ Yes, I want to do the questionnaire. (1)

☐ No, I do not want to do the questionnaire. (2)

**End of Block: Post-Information Letter**

---

**Start of Block: Personal Details**

Q2 Please enter your code word

☐ Code word (1) \_\_\_\_\_

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Q3 How old are you?

☐ 12 (1)

☐ 13 (2)

---

Q4 Gender

☐ Male (1)

☐ Female (2)

☐ Other- Please write in the box (3)

---

**End of Block: Personal Details**

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**Start of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

**IUSC Questionnaire included as in Appendix T**

**Q5-31**

**End of Block: Intolerance of Uncertainty Scale for Children (Comer et al., 2009)**

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**Start of Block: Vignette (Academic)**

Q32

Please read the situation below and imagine that it is happening to you. Then, answer the following questions. Please answer truthfully, rather than answering how you think you should answer. Remember no one will know your answers are yours.

*You have been agreed to take part in a project in a subject you love. You've just started the project, but you didn't realize that it will involve 10 hours of extra work a*

*week. You have just been told that you did badly in a test in another subject and have to re-take the test next week.*

What would you do to help deal with this situation?

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Q33

How confident do you feel dealing with this situation on a scale of 1-10?

**1=** Not at all confident   **10=** Extremely confident

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)



**End of Block: Vignette (Academic)**

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**Start of Block: Vignette (Social)**

Q34 Please read the situation below and imagine that it is happening to you. Then, answer the following questions. Please answer truthfully, rather than answering how you think you should answer. Remember no one will know your answers are yours.

***Your three closest friends have agreed to hang out on Saturday. You haven't been invited. You're not sure why.***

What would you do to help deal with this situation?

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Q35

How confident do you feel dealing with this situation on a scale of 1-10?

**1=** Not at all confident **10=** Extremely confident

- ☐ 1 (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 (5)
- ☐ 6 (6)
- ☐ 7 (7)
- ☐ 8 (8)
- ☐ 9 (9)
- ☐ 10 (10)

**End of Block: Vignette (Social)**

---

**Start of Block: Debrief Form**

Q36 **Research Study Title**

**The implementation and evaluation of a universal programme to strengthen young people's tolerance of personal uncertainty.**

**You have finished! Please read, scroll down and tick the button at the bottom of the page!**

Thank you so much for your time and patience. You took part in a programme in your class. The aim was to see if the programme could help you to be more comfortable with feeling uncertain.

The questionnaire was trying to understand:

- how you felt about being uncertain before and after the programme.
- how confident and comfortable you felt coping with difficult situations before and after the programme.
- what ways you used to cope before and after the programme took place
- what you thought about the programme

Research has shown that people who have difficulties with feeling uncertain can feel worried. This can also mean they are less open to new or different ideas. Remember, all your answers are private so that means that only the researcher and the research supervisor will know your answers are yours.

The programme was for your whole class so taking part does not mean you have a problem as the programme is meant to help all children in different ways. It may help some with feeling uncertain and it may help some to be more open to new or different ideas.

Information from the questionnaire may be used in a psychology research paper, but your personal details will not be used.

If you want more information about feeling uncertain, these are some useful websites:  
<http://youth.anxietybc.com/anxiety-101>

<https://www.getselfhelp.co.uk/docs/APPLE2.pdf>

If you have any questions or worries as a result of doing this questionnaire, ask your teacher or contact me or the research supervisor on:

Names of Researcher: Peter D'Lima

Address: School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Contact Number: 02920 876497 Email: [DlimaP@cardiff.ac.uk](mailto:DlimaP@cardiff.ac.uk)

Supervised by: Andrea Higgins, School of Psychology, Cardiff University, Tower Building, Park Place, Cardiff, CF10 3AT Email: [HigginsA2@cardiff.ac.uk](mailto:HigginsA2@cardiff.ac.uk) Phone: 029 208 79003

This research project has been approved by an ethics committee at Cardiff University.

They make sure that the research project is carried out in a fair, sensible and respectful way. If you have any complaints about the project, contact: Secretary of the Ethics

Committee, School of Psychology, Cardiff University, Tower Building, Park Place,  
Cardiff, CF10 3AT    Contact Number: 02920 870 360    Email:  
psychethics@cardiff.ac.uk

☐ I have read the debrief form and I am ready to finish. (1)

**End of Block: Debrief Form**

## **Appendix OO Pilot School Information**

### **Pilot School 1**

Pilot School 1 is an 11-18 comprehensive school in an urban Welsh local authority. There are approximately 1,200 pupils on roll, including 295 in the sixth form. Pupils come from a wide geographical area. However, the large majority come from the city in which the school is based. The school welcomes students of all faiths and those with no faith background. Just under 16% of pupils have additional learning needs, which is below the national average. Just over 5% of pupils have statements of special educational needs, which is higher than the national average. Just under 9% of pupils are eligible for free school meals, which is well below the national average of 17%. Nearly all pupils have English as their first language. Around 18% of pupils come from minority ethnic backgrounds.

This information has been adapted and anonymised from a 2018 Estyn inspection report. Estyn is the education and training inspectorate for Wales.

### **Pilot School 2**

Pilot School 2 is a larger than average grammar school. It is situated in an English, suburban local authority and was recently converted to an academy. The proportion of pupils who are disadvantaged and, therefore, supported with additional government funding, known as the pupil premium, is significantly lower than the national average. The pupil premium is funding for those pupils who are known to be eligible for free school meals, and for looked after children. The proportion of pupils from minority ethnic groups and those who speak English as an additional language is lower than the national average. The proportion of pupils who have special educational needs is lower than the national average.

This information has been adapted and anonymised from a 2016 Office for Standards in Education, Children's Services and Skills (Ofsted) inspection report. Ofsted is responsible for inspecting a range of educational institutions in England.

## Appendix PP: Uncertainty Vignettes

### Function of the Vignettes

- To understand what skills young people may use to deal with uncertain situations before and after the programme
- To understand how confident and comfortable young people feel in managing uncertain situations before and after the programme

### Vignette (Academia x 3 Pre/Post/8 Weeks Post)

*You were absent last week when the teacher told your class about an important test. You have just found out that the test is tomorrow morning and you haven't prepared. (Pre)*

*You are usually able to understand new things in lessons. However, you have a new teacher and you just aren't understanding things in the same way. (Post)*

*You have been agreed to take part in a project in a subject you love. You've just started the project, but you didn't realize that it will involve 10 hours of extra work a week. You have just been told that you did badly in a test in another subject and have to re-take the test next week. (8 weeks Post)*

### Vignette (Social x 3 Pre/Post/8-weeks Post)

*Your friend has stopped talking to you. Every time you see your friend, they walk away. You don't know what you have done. (Pre)*

*You've arranged to meet a person you like in your year group. They've said they will go to the cinema with you, but another friend has said they aren't going to show up. (Post)*

*Your three closest friends have agreed to hang out on Saturday. You haven't been invited. You're not sure why. (8 weeks Post)*

1. What would you do to help deal with this situation?
2. How confident would you feel dealing with this situation on scale from 0-10?

**1- Not at all confident  
Confident**

**10- Extremely**

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

**Appendix QQ: 15-Point Checklist of Criteria for Good Thematic Analysis (Braun & Clarke, 2006, p. 37)**

<b>Process</b>	<b>No</b>	<b>Criteria</b>	<b>How achieved/ Evidence</b>
Transcription	1.	The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.	Recordings were listened to first and transcribed. Afterwards, the transcripts were proofread whilst listening to the recording to check accuracy.
Coding	2.	Each data item has been given equal attention in the coding process.	Yes; see transcripts (Appendix DDD & EEE) and summary of initial codes (Appendix GGG & HHH) in which all relevant data has been coded prior to themes being created.
	3.	Themes have not been generated from a few vivid examples (an anecdotal approach) but, instead, the coding process has been thorough, inclusive and comprehensive.	Coding has occurred after each data collection point (questionnaire/interview) and then connections between codes highlighted and summarised into themes (Appendix GGG & HHH & Figure 20)
	4.	All relevant extracts for all each theme have been collated.	Yes; see supporting extracts (Appendix LLL)
	5.	Themes have been checked against each other and back to the original data set.	Yes; & a trainee EP colleague matched data excerpts to themes at a success rate of 71.4% without having seen the data or themes before (Appendix SS)
	6.	Themes are internally coherent, consistent, and distinctive.	Yes- see thematic map in results; themes checked by researcher and research supervisor for internal coherence, consistency and distinctiveness
Analysis	7.	Data have been analysed rather than just paraphrased or described.	Yes- analysis checked by research supervisor
	8.	Analysis and data match each other – the extracts illustrate the analytic claims.	Yes; a trainee EP colleague matched data excerpts to themes at a success rate of 71.4% without having seen the data or themes before (Appendix SS)
	9.	Analysis tells a convincing and well-organised story about the data and topic.	Yes; see qualitative results.

	10.	A good balance between analytic narrative and illustrative extracts is provided.	Yes; see qualitative results.
Overall	11.	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.	Yes; time was allowed to come away from the data and return with fresh eyes. Themes were revised and refined numerous times prior to final version being selected. These revisions took place over a 4-month period.
Written report	12.	The assumptions about TA are clearly explicated.	Yes; see qualitative results for explanation of the strengths and drawbacks of TA.
	13.	There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent.	Yes
	14.	The language and concepts used in the report are consistent with the epistemological position of the analysis.	The epistemological position is pragmatic. Thus, the themes that emerged are useful in understanding whether this programme could be rolled out to help promote resilience to radicalisation in YP.
	15.	The researcher is positioned as <i>active</i> in the research process; themes do not just ‘emerge’.	Researcher-derived codes present in the coding process (Appendix GGG & HHH); comments made about the implications of the researcher designing and evaluating the programme in limitations of the qualitative analysis.



## Appendix RR: Investigator Triangulation

What do those involved with the programme perceive as the benefits (RQ6) associated with the programme?

Theme Title	Theme Number
Strengthening Snowflakes	1
Skilled and Ready	1.1
Accept & Tackle	1.2
I'm normal	1.3
New Perspectives	2
Relationships & Behaviour	3
Hands on	3.1
Treated like young adults	3.2

Extract	Coder 1 (Researcher)	Coder 2 (Unrelated to study)	Agree/Disagree
...they were treated more as young adults rather than just children and their views and their opinions and being able to voice what they wanted to say mattered and they were listened to	3.2	3.2	Agree
I learned a lot about how to deal with certain issues when they arise in terms of ((pause)) challenging it because it can be quite frustrating is blaming someone else that I now get why those kids do that and how they need help thinking it through(.)	2	1.1	Disagree
(I learned) how to deal with uncertainty with methods that suit the situation	1.1	1.1	Agree

I loved how hands-on it was(.) I think a lot of the times ((pause)) this idea of this 'if you just speak to me(.) I won't learn' (.) whereas with this it was all about ((long pause)) being active really(.) they were always active; it was always them involved(.)	<b>3.1</b>	<b>3.1</b>	<b>Agree</b>
"you can't just pull away from a situation ((long pause)) but if you just face it and say(.) 'look my bad'(.) it's a lot better(.) then you can just resolve things and there is no like tension ((pause))"	<b>1.2</b>	<b>1.2</b>	<b>Agree</b>
I liked the interaction with the boys when they weren't just sort of sitting down	<b>3.1</b>	<b>3.1</b>	<b>Agree</b>
(I learned) that I am not the only person who feels like this sometimes	<b>1.3</b>	<b>1.3</b>	<b>Agree</b>
...the teaching support assistant who works with him (a child) I sent them all the materials and all the stuff and she was going through with him and talking about it and she said that she noticed a marked difference in his attitude and in his behaviour over there(.) so(.) it wasn't just a kind of one-off kind of thing ((pause))	<b>3</b>	<b>3</b>	<b>Agree</b>
I know this generation is becoming a massive issue people don't like uncertainty((pause)) the term snowflake is used quite a lot(.) it's a perfect research project to do (.)...it's looked at how children can think about what's actually	<b>1</b>	<b>1</b>	<b>Agree</b>

happening(.) calm down stay calm and actually make an ((pause)) you know (.) educated decision(.)			
it also helped whenever I face a problem how(.) like emm (.) how to like resolve it and how to act upon it using like assertive actions and things like that(.)	<b>1.2</b>	<b>1.1</b>	<b>Disagree</b>
I think it's helped them think about their actions and how they react to certain situations has really helped(.)	<b>3</b>	<b>2</b>	<b>Disagree</b>
I think it was really good because it sort of made you feel it was ok to be uncertain(.) like you can't always know what's going to happen all the time(.) I think it's sort of like you realise that other people were uncertain too(.)	<b>1.3</b>	<b>1.3</b>	<b>Agree</b>
Well before the programme ((pause)) if I'd probably be more passive-aggressive than assertive to be honest ((pause))...And so I think the programme has kind of like opened my eyes to what's better (.)...because it's kind of like not getting angry and you're not like ((pause)) hmmm ((pause)) trying to take it out on them later(.) you're telling you're telling them that you don't want to do it like straight away	<b>2</b>	<b>2</b>	<b>Agree</b>
we learned how to stay calm or like how to control our breathing and stuff and not	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>

like worry as much if we had exams and stuff like that			
...he explained that he felt that it was different he felt (a student) ((pause)) that PD (researcher) wasn't judging him...and he felt valued by him(.)	<b>3</b>	<b>3.2</b>	<b>Disagree</b>
(I learned) how to accept things are inevitable and coping with them	<b>1.2</b>	<b>1.2</b>	<b>Agree</b>
For me being involved it was useful to see some of the students (.) that that do struggle with certain situations... and it was how they adapted and how they handled it and it was quite nice to see because initially ((pause)) we entered into it with them with a little trepidation because well how are they going to handle it are they going to sort of ((pause)) close up is it going to be detrimental to them? but actually they enjoyed it and they ((pause)) and particularly one student who we knew who does have problems and he did engage with it	<b>2</b>	<b>2</b>	<b>Agree</b>
you get so many emails off parents where ((pause)) students have gone home worrying and panicking about this has happened and that has happened or he's really worried about that or he's extremely anxious about coming in tomorrow or ((pause)) his ECT or his exam	<b>1</b>	<b>1</b>	<b>Agree</b>

or whatever it is and for me it's about them you know? (.) how can they look it and go these are the options I've got? And the dilemmas were about(.) are you going to ask people for advice or are you going to go on your gut instinct...It was quite interesting to see how ((pause)) lads of that age haven't got a clue on their own(.)"			
but actually he (the researcher) had that trust(.) ...he just sort of trusted them to get on with it(.) a lot of teachers with chocolate or whatever it might be(.) they might not have that trust: 'I couldn't possibly give them a Malteser because they'll just mess around and eat it!' Whereas(.) he was brave(.) he took risks and it worked really well(.)	<b>3.2</b>	<b>3.2</b>	<b>Agree</b>
"It taught us some useful methods to cope with stress or anxiety related to feeling uncertain."	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>
If you have a problem deal with it instead of avoiding it	<b>1.2</b>	<b>1.2</b>	<b>Agree</b>
It (the programme) was really relevant to this day and age(.) It's such a big issue at the moment(.) Kids just(.) it's called the snowflake generation for a reason(.) They just do not deal with any kind of uncertainty or anxiety(.) they just really	<b>1</b>	<b>1</b>	<b>Agree</b>

struggle and that (programme content) again was perfect(.)			
...it (the programme) was interactive which was nice so they weren't just sitting there (.) I think that was something else they were all expecting and that's what they're used to it's that you just sit but they didn't have to they could get up and they could walk around they swapped and what have you (.) so that was nice that was different for them and I think that they all enjoyed that and I think that helped them sort of that helped their confidence and also their belonging with the rest of the group	<b>3.1</b>	<b>3.1</b>	<b>Agree</b>
the lesson on the acceptance and avoidance also helped about like(.) how to accept problems no matter how bad it is and it can help get weight off your shoulders and like yeah	<b>1.2</b>	<b>1.2</b>	<b>Agree</b>
...it (the programme) was very helpful and now I know what to do in the future if anything like that happens(.)	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>
Like we could learn how to look at situations in a different light(.) So like if we used to look at them and get quite angry(.) we could actually be calm and find a different way to approach situations and like look at how other	<b>2</b>	<b>1.2</b>	<b>Disagree</b>

people might approach it with different mindsets and stuff like that			
...I can use it (the programme) later in life when I've got loads of dilemmas because I had a dilemma from this which could be resolved to that (.) and I could use the same outcome to fix it(.)	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>
(I learned) that it's okay to be uncertain	<b>1.3</b>	<b>2</b>	<b>Disagree</b>
			<b>Total Agreement (RQ6): 22/30; 73.3%</b>

**What do those involved with the programme perceive as the challenges (RQ7) associated with the programme?**

<b>Theme Title</b>	<b>Theme Number</b>
Unappreciated Impact	<b>1</b>
“Boring Hippie Nonsense”	<b>1.1</b>
Unrealistic Expectations	<b>1.2</b>
Ignorance is Bliss	<b>1.3</b>
Real-life Connections	<b>2</b>
Mindful Environment	<b>3</b>
Self-Consciousness	<b>3.1</b>
“I don’t want this programme to just stop”	<b>4</b>

<b>Extract</b>	<b>Coder 1 (Researcher)</b>	<b>Coder 2 (Unrelated to study)</b>	<b>Agree/Disagree</b>
I think also that they had hmmm ((pause)) an unrealistic expectation of what it was going to do ((pause)) I think they all felt that by the end of it (.) they would feel (.) better or different or whatever else and I think that they thought there would be a marked difference in how they thought or felt...	<b>1.2</b>	<b>1.2</b>	<b>Agree</b>
I’ve said maybe about putting it into sort of everyday school life(.) once you’ve done the friend task or the finger trap or Malteser task or whatever it is(.) get them to write down like(.) right(.) you’ve got 5 or 10 minutes now give me an example of	<b>2</b>	<b>2</b>	<b>Agree</b>



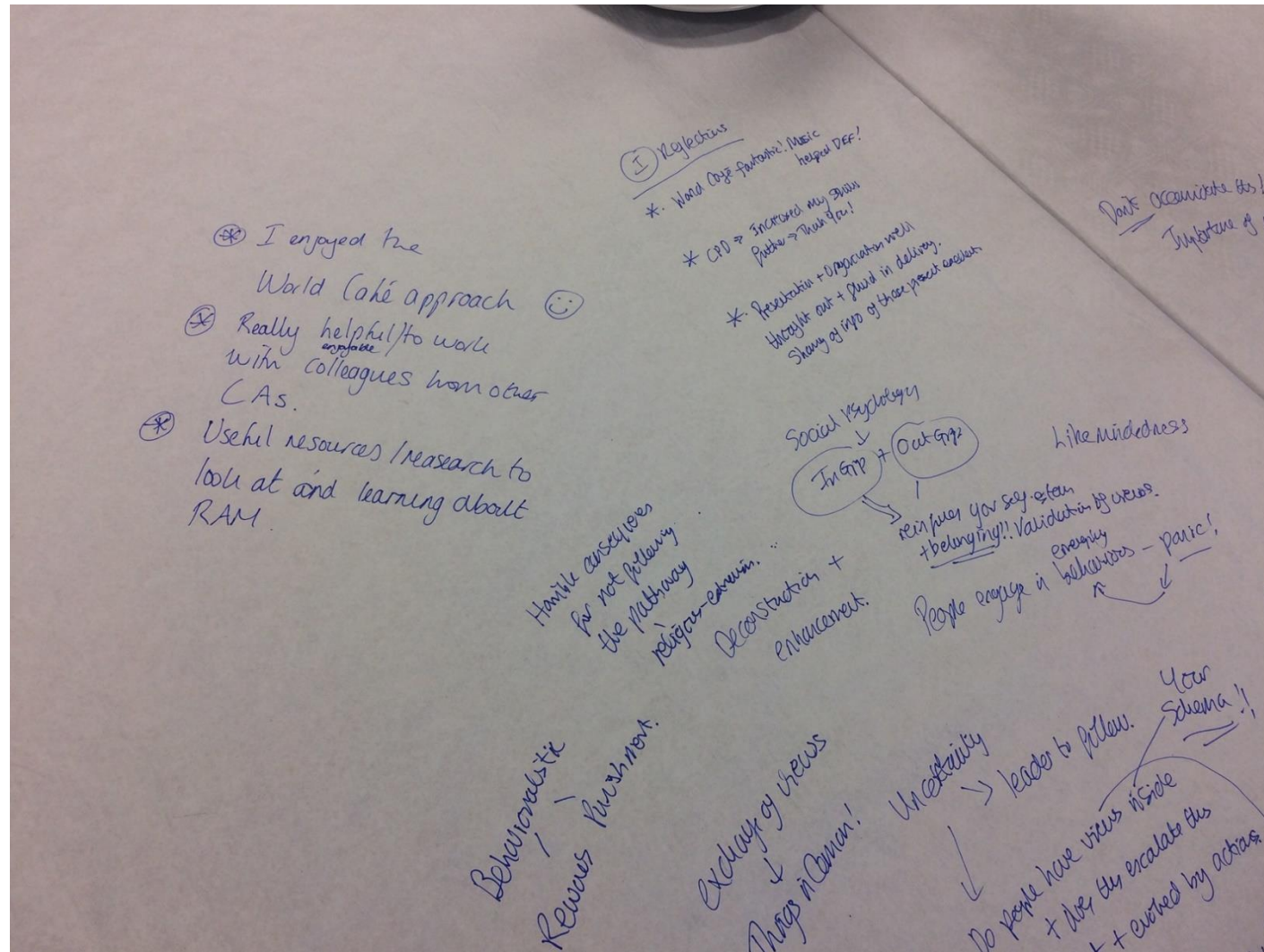
how this affects your every single day life in school(.)			
When people come in (.) it's that sort of ((pause)) the child then thinks what you know 'they're going to think we're stupid' and then they're sitting here with a Malteser on their hand with their eyes closed ((pause)) you know it's that kind of thing?	<b>3.1</b>	<b>3.1</b>	<b>Agree</b>
I struggled to understand the reason for these exercises	<b>1</b>	<b>1.1</b>	<b>Disagree</b>
we would not have time to label our thoughts as we (did) during the activity, in a school environment	<b>1.1</b>	<b>2</b>	<b>Disagree</b>
i think it could've covered topics like depression and how to deal with that	<b>2</b>	<b>1.2</b>	<b>Disagree</b>
understanding things (was a challenge)	<b>1</b>	<b>1.3</b>	<b>Disagree</b>
...at the end(.) there is a follow-up(.) so it's not just left(.) and they need to continue practicing it to hmmm (.) make sure it works(.) (re: the programme)	<b>5</b>	<b>1</b>	<b>Disagree</b>
"In my complete honesty, I do still find it difficult to take assertive actions, and also, I still find it difficult not to resist temptation"	<b>1</b>	<b>1.2</b>	<b>Disagree</b>
Can also make you feel a bit insecure as you have to share your opinions with the class	<b>3.1</b>	<b>3.1</b>	<b>Agree</b>
I liked the mindfulness thing because its good but if you were really stressed out in	<b>1.1</b>	<b>3</b>	<b>Agree</b>

school or something you don't have time to sit and you cant close your eyes but I still liked it			
I had to think about things I had never thought about	<b>1.3</b>	<b>1.3</b>	<b>Agree</b>
I felt that the whole SPOTLIGHT OF ATTENTION thing was a bit stupid	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>
it's getting them to think about everyday life like I've said before (.) In everyday life how are you going to apply this?	<b>2</b>	<b>2</b>	<b>Agree</b>
it was stressful when the others in class were being loud and annoying because it put me off and I didn't enjoy it as much as I could've when they were getting told off	<b>3</b>	<b>3</b>	<b>Agree</b>
I don't think they do appreciate what the programme did for them because they can't see those little changes...	<b>1</b>	<b>1</b>	<b>Agree</b>
Also(.) I don't just want this programme to just stop because (.) how are we going to then progress it to make it worth-while (.) if it just ends then it's not been worth anything(.)	<b>4</b>	<b>4</b>	<b>Agree</b>
I think one of the challenges would probably have been being honest about everything you're saying(.)...Well you want a kind of like appear good but ((pause)) you don't if you don't think that then you kind of just lie about what you would do(.)	<b>3.1</b>	<b>3.1</b>	<b>Agree</b>
I think they struggled thinking about things they don't want to think about(.)	<b>1.3</b>	<b>1.3</b>	<b>Agree</b>

maybe it's a tailored programme for just a few of them so smaller groups rather than a group of 30 or something like that because obviously that was quite a big group and it's quite a big group when you're trying to ((pause)) obviously keep them all quiet to sort of conduct for mindfulness you know	<b>3</b>	<b>3</b>	<b>Agree</b>
if you were going to improve it at all it would be that over lasting impact is (.) Are they going to record what they've done differently in the next 6 months? so from now till summer(.) how has this project changed their life? Is there something in place that could measure that or that can judge that?	<b>4</b>	<b>2</b>	<b>Disagree</b>
(the programme was) a waste of time	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>
I feel I only worry to a minimal extent compared to others so I felt as though it opened ideas that I hadn't considered making me worried	<b>1.3</b>	<b>1.3</b>	<b>Agree</b>
And especially(.) this came from two of the girls who are ((pause)) being mentored at the moment because they have self-esteem issues and anxiety and ((pause)) real issues with self-harm with one of them(.) I think they thought this was going to provide them with the answer(.)	<b>1.2</b>	<b>1</b>	<b>Disagree</b>
I think you need a quiet space away from everybody hmmm ((pause)) you haven't got	<b>3</b>	<b>3</b>	<b>Agree</b>

sort of people interrupting I think that's important if the programme was to be rolled out			
I think some of the tasks were a bit like ((pause)) boring to be honest((pause)) ...like some like some of the tasks seemed to drag on a bit you know what I mean?	<b>1.1</b>	<b>1.1</b>	<b>Agree</b>
			<b>Total (RQ7): 18/26 agreement; 69.2%</b>
<b>Overall Total Agreement:</b>  <b>71.4% agreement</b>			

## Appendix SS: Study 1- Photos of EP Reflections Recorded During Session 1



Schema!  
 How can AAP lead  
 to radicalisation?  
 Picture → Message they give?  
 Little to Tony.  
 Motivational Conflict.  
 → Extreme Views!  
 How then have materialised.  
 These views  
 give strength to their view!  
 Healthy options  
 Questioning of  
 + investment in challenging a  
 position  
 thoughts +  
 judgements.  
 (my

X. cinema / Good & Thriller.  
 X. swimming  
 X. female.

brothers  
 cat

Uncertainty → Feeling of  
 Threats.  
 ↓  
 look for validation  
 of views from others  
 Media etc



361

John Oats  
and P. Thirte.

- Reflections - positive
- applied Psychology
  - better understanding of tolerance of uncertainty.
  - good process, minimal gaps techniques, to gather information.

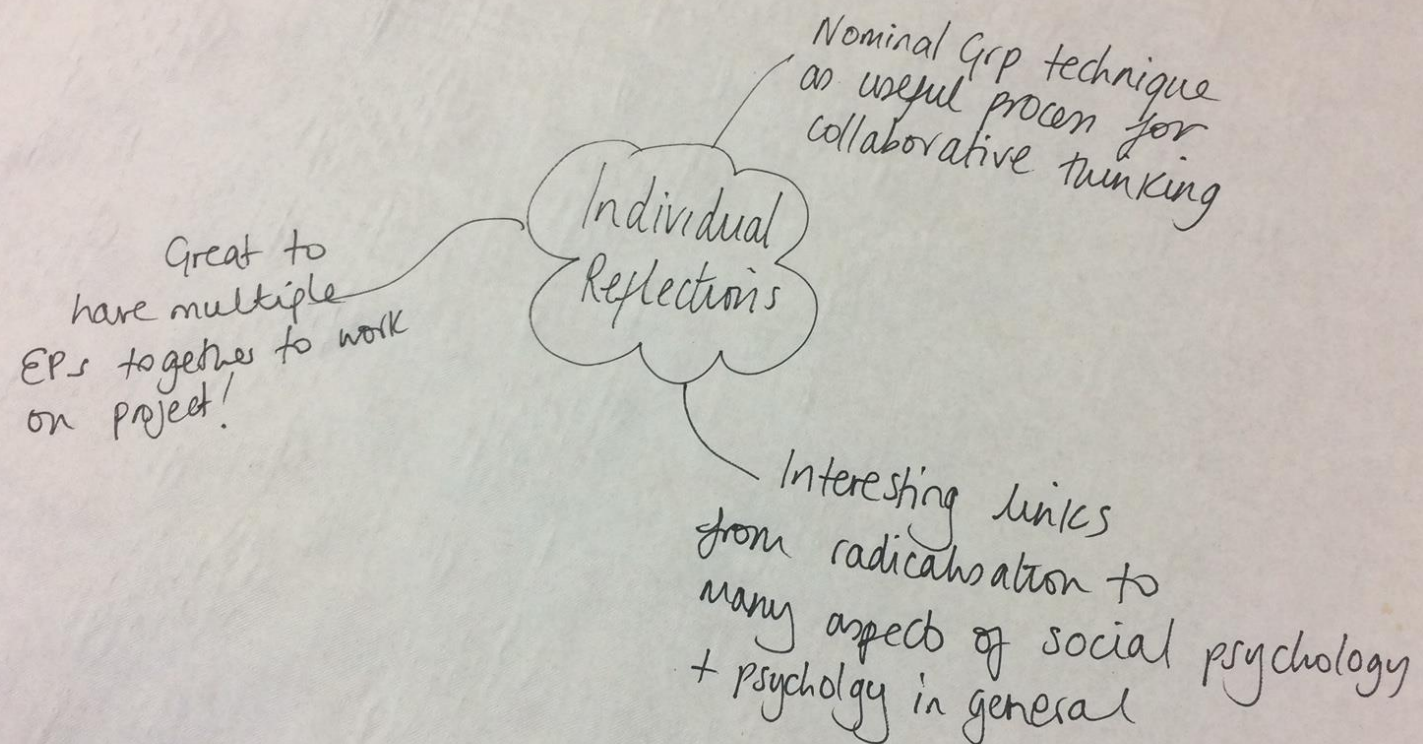


• External vs Internal  
Locus of Control

• self esteem >

normalcy  
personal  
uncertainty  
extremist way





don't do social psychology  
any in general

### Reflections

- really liked the 'world cafe' method to facilitate participation + 'voting'
- interesting to know the background/Statistics/research into radicalisation
- prompts some ideas to use at the universal level in our EP work

RAM  
linked to pictures.

### Brexit

Media causing uncertainty in population. Uncertainty increased prior to vote = polarisation of opinion + potentially more extremist views.

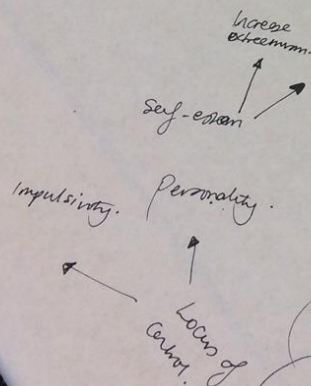
Not enough clear info available = people voting impulsively.

Need to create meaning, remove uncertainty making a choice - even an extreme one relieves this.

Vulnerability to extremism.

Adolescence  
Greater uncertainty - peer views.

reduces choice!



Uncertainty

1. All got brothers.

- Intolerance of uncertainty Questionnaire
- ASD score more highly.
- Strong receptive lang dev. imp. to complete questionnaire and understand ambiguous questions.

Core components  
of a programme that  
strengthens tolerance of  
uncertainty.

- Learning objectives of prog.
- reducing anxiety associated with uncertainty.

3

### Reflections

- World café idea was great for inducing a relaxed atmosphere that made everyone feel happy to speak and question.
- Great discussions that helped clarify and build on ideas put forward by the group.
- Food for thought / thought provoking topic that made me think about certain theories differently.



## Appendix TT: Study 1- Summary of EP reflections during Session 1

Key reflections on RAM theory and its relevance to radicalisation	Key points to consider regarding RAM theory and its relevance to radicalisation	Key reflections regarding of World Caf éand NGT process & implications for EP practice
<ul style="list-style-type: none"> <li>• Relating RAM and difficulties with uncertainty to current uncertainty-inducing political events (e.g. Brexit) &amp; the rise of extremism, racism, and how the polarisation of views may have provided solace from uncertainty</li> <li>• There are greater times of uncertainty during adolescence- it makes sense to target the programme at adolescents.</li> <li>• In times of uncertainty, people may want a leader to follow and to show them the way- increased vulnerability to radicalisation.</li> <li>• Parents may protect their children from experiencing uncertainty as they cannot handle their children dealing with this. This can then promote children not being able to tolerate uncertainty which could make them vulnerable to extremism.</li> <li>• YP may selectively abstract aspects of the media/current affairs that fuels their extremist narrative as this gives credibility to their views.</li> </ul>	<ul style="list-style-type: none"> <li>• How do other theoretical approaches relate to extremism? Impulsivity/ Locus of control/self-esteem</li> <li>• IUSC questionnaire quite difficult to understand and quite ambiguous itself. How to ensure that all children can access it?</li> <li>• Children with ASD will score highly on the IUSC as they have difficulties with uncertainty.</li> <li>• The effect of group dynamics should also be considered e.g. ingroup, outgroup, assimilation, the need to belong</li> <li>• Do people have a mindset/disposition that predisposes them to relate to uncertainty in this way?</li> <li>• Behavioural inhibition system (BIS) is a very mechanistic and behaviouristic model- not in keeping with current EP practice.</li> <li>• If anti-anxiety drugs dampen the BIS does this lead to YP who take them engaging in more risk</li> </ul>	<ul style="list-style-type: none"> <li>• Relaxed, informal environment promoted discussion and facilitated critical thinking in which ideas were built upon</li> <li>• NGT was deemed a useful process for collaborative thinking</li> <li>• Opportunities to work with other EPs was valued</li> <li>• Interesting links with radicalisation research and other areas of social psychology</li> <li>• Prompted ideas for further universal EP working</li> <li>• Thought provoking ideas regarding radicalisation that brought about new perspectives</li> <li>• For example, schools themselves have difficulties handling uncertainty. When YP do not assimilate, schools want the problem to go away and if not, they can want YP to go to a more suitable setting. This then may relieve the uncertainty of not being able to manage them.</li> </ul>

	taking? Or just lessen inhibition pathways?	However, it also reflects very rigid, inflexible thinking
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## Appendix UU: Study 1- Ideas Generated from Nominal Group Technique (NQT) and the Process of Component Selection

1	Idea: Core Components	EP1	EP2	EP3	EP4	EP5	EP6	Total
2	To understand that you can't plan for everything; but you can prepare & adapt; building confidence in this	1						1
3	To understand what uncertainty means to them individually; reflecting on internal & external influences & locus of control		1					1
4	Exploring positive and negative automatic thoughts related to uncertainty							0
5	To look at real-life scenarios and social/moral dilemmas regarding decision making; reflecting on moral & ethical values	1	1	1	1			4
6	Acceptance: accepting all emotions; understanding the fluidity of emotion					1	1	2
7	Work on the social use of language to help develop protective peer relationships	1						1
8	Work on effective decision-making: reflection; looking at different perspectives; understanding decisions can be modifiable			1	1			2
9	Work on problem solving and the influence of problem solving on different systems: how our actions affect others							0
10	Exploring motivational influences using personal construct psychology e.g. The Ideal Self							0
11	Work on the link between physiological expression of emotions and the link with thoughts, feelings, behaviour (e.g. CBT work)	1		1	1		1	4
12	Exploring narrative approaches and what supports or influences narratives							0
13	Work on mindfulness skills- self-reflection & teaching others					1	1	2
14	Identifying own coping strategies to deal with personal uncertainty		1	1				3
15	Work on Choice Theory- looking at Pros & Cons of have a decision and understanding that they may not arrive at a decision							0
16	Work on the Window of Tolerance & reflection on different ways of dealing with stress and anxiety	1	1	1	1	1		5
17	Use of positive psychology to reframe personal uncertainty			1				1
18	Work on Beck's cognitive triad- Views of self, world, and future							0
19	Acceptance of differences	1	1		1	1	1	5
20	Work on the link between stress/ personal uncertainty and inflexible thinking or rigidity e.g. peer norms & risky shift phenomena					1	1	2
21	Tapping into personal constructs and emphasising the importance of having a view, having curiosity for others views & valuing all views							0
22	Work on growth mindset in response to failure/personal uncertainty					1		1
23	Work on improving judgement through improving information collating skills & confidence							0
24	Work on assertiveness and cognitive bias- media can alter our views; propaganda etc.		1		1		1	3
25	Work on delayed gratification- acceptance; sitting with difficulty							0
26	Work on in-groups, out-groups, & stereotyping							0

Inclusion criteria for component selection by researcher following the NGT	Exclusion criteria for component selection by researcher following the NGT
<ul style="list-style-type: none"> <li>• The component must have one vote or more. Proposed components without a vote can be considered if they fit cohesively with other components that were voted for.</li> <li>• The component must be substantiated by the research literature around uncertainty or related concepts with which it has convergent validity (e.g. anxiety: see Read et al., 2013).</li> <li>• The selected components must fit together cohesively to form a theme and themes must fit together to form a cohesive programme.</li> <li>• The inclusion must be justified with reference to the literature.</li> </ul>	<ul style="list-style-type: none"> <li>• If a component does not meet the inclusion criteria.</li> <li>• If inclusion of the component would threaten the external validity of the programme by dealing with another concept that does not have convergent validity with uncertainty (e.g. growth mindset).</li> </ul>

### References for Appendix UU:

Dugas, M. J., Ladouceur, R., Léger, E., Freeston, M. H., Langolis, F., Provencher, M. D., & Boisvert, J. M. (2003). Group cognitive-behavioral therapy for generalized anxiety disorder: treatment outcome and long-term follow-up. *Journal of Consulting and Clinical Psychology*, 71(4), 821.

Component Voted for (no. of votes)	General Theme	Rationale for Inclusion	How Represented in the Programme
<p><b>2.</b> To understand that you can't plan for everything; but you can prepare &amp; adapt; building confidence in this <b>(1)</b></p> <p><b>4.</b> Exploring positive and negative automatic thoughts related to uncertainty <b>(0)</b></p> <p><b>11.</b> Work on the link between physiological expression of emotions and the link with thoughts, feelings, behaviour (e.g. CBT work) <b>(4)</b></p> <p><b>25.</b> Work on delayed gratification- acceptance; sitting with difficulty <b>(0)</b></p>	<p><b>CBT/Reframing</b></p>	<p>Dugas et al. (2003) conducted group-based CBT with adults and it was effective in reducing intolerance of uncertainty (IU).</p> <p>Cognitive Behaviour Therapy (CBT) has been found to be an effective psychological intervention for children and young people with anxiety disorders (James et al. 2013 cited in Stallard et al., 2015).</p> <p>Universal, group-based CBT work using the Friends for Life programme has been effective in a large randomised controlled trial amongst 9-10-year olds (Stallard et al., 2015).</p> <p>Reframing can also be defined as exploring a new relationship with difficulty and is a part of acceptance and commitment therapy (ACT).</p> <p>A recent review (Swain, Hancock, Dixon, &amp; Bowman,</p>	<p>Promoting skills in empathy- using role plays and hypothetical scenarios to look at differing perspectives may help YP to see their own situations from multiple perspectives. <b>(Related to CBT generally; 2, 11)</b></p> <p>NALA (Notice, Accept, Label, Assertive Action), the acronym used within the programme, promotes the noticing of automatic thoughts. <b>(4, 25)</b></p> <p>The Connect-4 technique is a CBT-based tool to help YP observe and reflect on the connection between thoughts, feelings, body sensations and behaviour. <b>(4, 11, 25)</b></p> <p>The thought suppression challenge shows the futility of thought suppression and begins learning on the difference between</p>



		2015) found emerging evidence for the efficacy of ACT for children and YP.	acceptance and avoidance. (4, 25)  Normalising feelings of difficulty but providing strategies to deal with difficulty e.g. assertiveness role play; mindfulness; connect-4; 6-step decision plan. (2)
<p>3. To understand what uncertainty means to them individually; reflecting on internal &amp; external influences &amp; locus of control (1)</p> <p>10. Exploring motivational influences using personal construct psychology e.g. The Ideal Self (0)</p> <p>18. Work on Beck's cognitive triad- Views of self, world, and future (0)</p> <p>20. Work on the link between stress/ personal uncertainty and inflexible thinking or rigidity e.g. peer norms &amp; risky shift phenomena (2)</p> <p>21. Tapping into personal constructs and emphasising the importance of having a view,</p>	<b>Understanding personal uncertainty, self and others</b>	<p>A programme to strengthen tolerance of personal uncertainty will naturally focus on uncertainty as a concept.</p> <p>However, Intolerance of uncertainty therapy (IUT) (van der Heiden et al., 2012) has been found to reduce IU in adults with Generalised Anxiety Disorder (van der Heiden et al., 2012). Therefore, a focus on uncertainty is helpful in promoting change in issues related to uncertainty (i.e. anxiety).</p>	<p>Framing the programme in the context of personal uncertainty. (3)</p> <p>Scenarios that present individuals who are experiencing motivational conflict and personal uncertainty. Asking YP to relate to these scenarios through activities and role play. (1, 10, 18, 21)</p> <p>Providing an opportunity for YP to feel personal uncertainty and talking about the 'hedgehog effect', a child-friendly way of discussing the potentially increased rigidity of thought</p>

having curiosity for others views & valuing all views <b>(0)</b>		<p>IUT focuses on worry orientation and differentiates between helpful worries/thoughts and unhelpful worries/thoughts (van der Heiden et al., 2012).</p> <p>Reactive approach motivation (RAM) theory attributes the move towards ideological extremes as a way of alleviating personal uncertainty that occurs in response to motivational conflict (McGregor, Nash, Mann, et al., 2010). Therefore conveying how personal uncertainty may lead to more rigid or inflexible or extreme ways of thinking may be useful. Furthermore, developing an understanding of motivation and motivational conflict and how that may influence one's experience may build self-awareness and empathy.</p>	<p>when in times of motivational conflict and personal uncertainty. <b>(20,21,10,3,18)</b></p> <p>Creating a safe space within the classroom in which all views were valued and emphasising this within the <i>Embrace Life</i> plan. <b>(21)</b></p>
<p><b>6.</b> Acceptance: accepting all emotions; understanding the fluidity of emotion <b>(2)</b></p> <p><b>13.</b> Work on mindfulness skills-self-reflection &amp; teaching others <b>(2)</b></p>	<b>Acceptance</b>	<p>These components are embodied in ACT (Hayes &amp; Strosahl, 2004).</p> <p>A recent review (Swain, Hancock, Dixon, &amp; Bowman,</p>	<p>Mindfulness forms a part of each Embrace Life session and is taught as a skill to promote acceptance. <b>(6,13,19,25)</b></p>

<p><b>19.</b> Acceptance of differences <b>(5)</b></p> <p><b>25.</b> Work on delayed gratification- acceptance; sitting with difficulty <b>(0)</b></p>		<p>2015) found emerging evidence for the efficacy of ACT for children and YP.</p> <p>Furthermore, ACT incorporates mindfulness (Swain et al. 2018) and mindfulness-based approaches have been found to promote mental health and well-being in children and YP in an extensive and robust meta-analysis and helps with issues related to anxiety and depression (Dunning et al., 2019).</p>	<p>The ice-cube task and the Chinese finger trap task promote accepting difficult feelings and sensations and that people will have different reactions to stimuli/ events <b>(6,13,19,25)</b></p> <p>NALA (Notice, Accept, Label, Assertive Action), the acronym used within the programme, promotes this acceptance of difficulty and reducing experiential avoidance. <b>(6,13,19,25)</b></p> <p>Session 6 involves the participants teaching others the skills that they have learned around acceptance e.g. mindfulness. <b>(13)</b></p>
<p><b>5.</b> To look at real-life scenarios and social/moral dilemmas regarding decision making; reflecting on moral &amp; ethical values <b>(4)</b>.</p> <p><b>8.</b> Work on effective decision-making; reflection; looking at different perspectives; understanding decisions can be modifiable <b>(2)</b></p>	<p><b>Effective Decision Making</b></p>	<p>A core component of ACT is using values to guide behaviour and decision-making (Gillard et al., 2018). (See justification above for ACT)</p> <p>Working on varying perspectives before decision-making connects to CBT and understanding that there are multiple ways of looking at and</p>	<p>Promoting skills in empathy-using role plays and hypothetical scenarios to look at differing perspectives may help YP to see their own situations from multiple perspectives. <b>(4, 2, 15,23)</b></p> <p>A focus on values from the outset and using these to</p>

<p><b>15.</b> Work on Choice Theory- looking at Pros &amp; Cons of have a decision and understanding that they may not arrive at a decision <b>(0)</b></p> <p><b>23.</b> Work on improving judgement through improving information collating skills &amp; confidence <b>(0)</b></p>		<p>approaching an issue. (See justification above for the use of CBT)</p>	<p>guide decision-making. A focus on the difficulties that arise when motivational conflict exists and developing strategies to deal with this: NALA; mindfulness; seeking support <b>(5, 8, 15, 23)</b></p> <p>6-Step decision tree to help promote reflection and approaching a situation from multiple perspectives before committing to an informed decision. <b>(8,15,23)</b></p>
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Dunning, D. L., Griffiths, K., Kuyken, W., Crane, C., Foulkes, L., Parker, J., & Dalgleish, T. (2019). Research Review: The effects of mindfulness-based interventions on cognition and mental health in children and adolescents—a meta-analysis of randomized controlled trials. *Journal of Child Psychology and Psychiatry*, 60(3), 244-258.

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Hayes, S. C., & Strosahl, K. (2004). *A practical guide to acceptance and commitment therapy*. New York, NY : Springer.

McGregor, I., Nash, K., Mann, N., & Phills, C. E. (2010). Anxious uncertainty and reactive approach motivation (RAM). *Journal of Personality and Social Psychology*, 99(1), 133-147.

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#### **Appendix VV: Study 1- Session 2 EP Critique of Draft *Embrace Life Plan* & Changes Made**

<b>Key Strengths</b>	<b>Key factors to consider</b>
Combining elements of mindfulness and CBT were deemed useful to the programme aims.	The ‘energisers’ (e.g. human-sized rock, paper, scissors) were deemed too energetic and could actually result in difficulties managing behaviour or retaining focus.

	<p><b>Change made:</b> Energisers were converted into a ‘reflective energizer’ which involved a fun activity that prompted reflection and had less of an emphasis on physical activity or high levels of adult co-ordination.</p> <p>(e.g. how many emotions words can you think of in 1 min?)</p>
Unique contribution- EPs had not seen a programme like this before and this was deemed valuable.	<p>The focus of the wig task was that students would be presented with a dilemma, note down positive or negative thoughts associated with the dilemma and these would be placed in a supersized afro wig which would be worn by a student. This was to demonstrate the weight of competing thoughts in the mind. It was felt that this task could be culturally insensitive and other ideas were suggested.</p> <p><b>Change made:</b> Afro-wig prop removed and replaced with a Headbasket- a basketball net that is placed on the head into which balls (representing positive and negative thoughts) could be thrown</p>
Going through homework tasks at the beginning of each session was thought to be helpful in ensuring that homework was valued and carried out.	<p>Clarity: ensuring that tasks/activities had a clear step by step element to ensure that anyone could deliver the programme</p> <p><b>Change made:</b> Tasks broken down step-by-step and further clarity provided</p>
Presenting the programme, its aims and how the YP can be supported to parents/carers and teachers was valued.	<p>Too much content in each session which could result in difficulties getting through activities and increase stress for the person delivering the programme and students.</p> <p><b>Change made:</b> Number of tasks per session reduced to allow time for more relaxed learning opportunities</p>
	<p>To consider adding a keyword for each session that embodied the key learning point of the session to aid memory and engagement.</p> <p><b>Change made:</b> Key words added.</p>

## **Appendix WW: Examples of Semi-Structured Interview Transcripts (Pilot 1)**

### **Interview 1 (Young Person):**

JUDITH (interviewer): My name is JUDITH (.) ok(.) lovely and you agreed to do the interview today about the programme you've just done(.) didn't you?

NIGEL (Child 2): Yeah

JUDITH: So(.) the first question is: What did you think were the benefits of the Embrace programme that you have been doing so thinking about what was helpful useful and positive about it (.) the (.) and I might ask you some questions about that as well(.) okay?

NIGEL: I think it was really good because it sort of made you feel it was ok to be uncertain(.) like you can't always know what's going to happen all the time(.) I think it's sort of like you realise that other people were uncertain too(.)

JUDITH: Yeah(.) so did that make you feel better knowing that other people felt the same as you too? Yeah?

NIGEL: Yeah

JUDITH: Brilliant(.) And what do you think are the challenges or things that could have been improved with the programme?

NIGEL: ((long pause)) Like(.) maybe the tasks and how it sort of relates maybe to what we are learning about(.) like(.) maybe the ice-cube task(.) I don't think I really grasped the concept of it ((pause)) or what it was really aimed at(.)

JUDITH: Okay (.) as you did the ice-cube task(.) did you understand a bit more afterwards why you were doing it(.) or did it become a bit clearer then?

NIGEL: ((pause)) yeah a little bit(.) but at the end I still ((pause)) didn't get it that much(.)

JUDITH: What do you think would help with regards to some of the activities then lovely?

NIGEL: I'm not sure(.) Not much(.) I think it's more like explaining it a bit better like ((clears throat)) what this is aiming to do(.)

JUDITH: Right (.) being really really explicit about what the aims are of activities(.)

NIGEL: Yeah

JUDITH: Especially things like the ice cube task and things

NIGEL: Mm-hm

JUDITH: Great(.) Ok(.) thank you(.) lovely(.) so(.) what was your favourite activity in the programme and why?

NIGEL: I thought like some of them were quite good(.) I thought the spider-web one was quite good ((pause)) because it was essentially the human mind essentially like what you'd think and how you'd feel(.) I think that was quite good

JUDITH: So that makes sense to you did it? That one

NIGEL: Yeah(.) that made sense(.) And the mindfulness was quite good(.) And ((long pause))

JUDITH: What did you like about the mindfulness one?

NIGEL: It just brought you to like ((pause)) a place that you'd never even been before

JUDITH: Okay (.) so you never thought about things in that way before(.) had you?



NIGEL: No(.)

JUDITH: So(.) how do you think that helped?

NIGEL: I don't know((long pause)) It's just different(.) really(.)

JUDITH: So(.) have you had a chance to practise or use that since you've done the programme?

NIGEL: Not really no because(.) like(.) I've never really ((long pause))

JUDITH: When do you think or (.) can you think of times when these things might be helpful for you?

NIGEL: Maybe ((inaudible)) in the morning...

JUDITH: Ok(.) yeah(.) Just to kind of think about things and be calm before you start the day and things(.) is it?

NIGEL: Yeah

JUDITH: Okay(.) so(.) what was your least favourite activity in the programme and why?

NIGEL: Mmmm ((long pause)) Probably the ice-cube one because I didn't really get it as I didn't get what he was saying ((long pause))

JUDITH: Yeah

NIGEL : that was probably about it(.) And the Post-It one(.) I sort of got it but I ((pause)) thought it was just a bit((long pause)) I don't know really((pause)) It was just a little bit like nobody really wanted to participate in it((pause)) It was boring(.) essentially(.) I saw the point in it(.) But like other people found it quite boring

JUDITH: Okay(.) did you find it boring?

NIGEL: I found it a little bit(.) but it was okay(.)

JUDITH: So do you think It would have been more useful if the others would have been a bit more engaged in it?

NIGEL: Yeah(.)

JUDITH: But you could sense that other people weren't that engaged in that one could you (.) yeah? So(.) you saw the point of it(.) but you weren't sure about whether people were finding it ((pause)) sort of enjoyable?

NIGEL: Yeah

JUDITH: Yeah okay lovely (.) what did you learn from the programme?

NIGEL: ((long pause)) Mmmm ((long pause)) What I said to start really: It's ok to feel uncertain and all this...

JUDITH: There's a little prompt sheet just in case you've forgotten some of the things ((pause)) that you did(.)

NIGEL: Yeah(.) the situations (.) like the finger trap(.) I thought that was quite good- you can't just pull away from a situation ((long pause)) but if you just face it and say(.) 'look my bad'(.) it's a lot better(.) then you can just resolve things and there is no like tension ((pause))

JUDITH: That one really resonated with you(.) You really thought about that one(.) yeah?

NIGEL: Yeah(.)

JUDITH: Brilliant(.) so what are your views on the Embrace booklet?

NIGEL: I thought it was quite good ((long pause)) I don't know really ((long pause)) I thought it was quite good ((long pause)) maybe because the things were not explained enough like what was the point? For example((pause)) we didn't focus on what was the point of the ice cube task((pause)) I think the point of this is or the message of this is...

JUDITH: In the booklet(.) as well? That wasn't clear in the booklet either?

NIGEL: It may have been clear(.) but I don't think we focused on it so none of us really knew

JUDITH: Okay(.) So(.) a bit more emphasis on the aim or the focus of what you're doing (.) would be helpful(.) okay(.)

NIGEL: Yeah(.) I think the focus of the mindful one was really good because it said (.) like the focus is to put your mind at rest and let thoughts come through or something

JUDITH: So(.) obviously correct me if I'm wrong(.) but the mindfulness one you did that was really helpful and that was explained well(.) but the others you weren't quite sure of what the aims were(.)

NIGEL: Yeah (.) That one I was okay with ((points at visual prompt))

JUDITH: Yeah

NIGEL: That one I was okay with

JUDITH: That was the Head basket one(.)

NIGEL: The ice cube one was a bit odd ((pause)) That one was quite good with the chocolate buttons ((points at visual prompt))

JUDITH: And you liked this one with the the tube and the fingers there ((points at visual prompt)) That made you understand about...

NIGEL: And the spider webs as well I was okay with the human mind...

JUDITH: Yeah(.) you mentioned that one didn't you? So(.) the spider web one(.) the one of about not pulling away and the mindfulness one you really took a lot away from

NIGEL: Yeah(.) Yeah

JUDITH: Brilliant(.) Thank you lovely(.) so(.) how would you describe the program to a friend who didn't know about it

NIGEL: Ok it's really good(.) but you need to try to get as involved as you can in it or it won't really help you because if you just sit back and don't put your hand up for anything then it (.) sort of won't really help and then what's the point of it? But if you actually take the mindfulness stuff seriously and take the message from that seriously then it can actually really help

JUDITH: So ((long pause)) so thinking about that then(.) so it can really help if you are engaged with it (.) How do you think it can be taken forward now? What do you think should happen after the program? After the six weeks? How do you think it could be taken forward so it would be helpful to others?

NIGEL: ((long pause)) I mean (.) more emphasis on the key values and what it's trying to convey ((pause)) If it's trying to convey something ((pause)) like with the ice-cube task it was really enjoyable (.) but I think if there was a focus on the key value of the task then we could take it in more...

JUDITH: So(.) just making sure everything is explicit at the time...

NIGEL: Yeah(.) so the thing was is all the ideas were quite fun although it was quite fun and especially like that one and that one ((pointing at visual prompt)) but if we

knew the key values of like what it's meant to represent 'oh yeah that was really fun that was meant to represent such and such' that would be better

JUDITH: Okay (.) so going back like you said to being very explicit about what the purpose of the activities are because(.) correct me if I'm wrong(.) it sounds like when it was really explicit about what the purpose was you took more out of it (.) you got more out of it...

NIGEL: And you remembered it more(.)

JUDITH: and you remembered it more(.) lovely(.) thank you for that(.) So(.) how would you rate the programme(.) firstly(.) one being extremely unenjoyable and 10 being extremely enjoyable(.) what number do you think you would rate the programme out of?

NIGEL: Probably about an 8

JUDITH: And what about being useful? One being extremely useless and 10 being extremely useful?

NIGEL: Probably about an 8 again

JUDITH: An 8 again (.) and do you think 8 is a good number or (.) would there be somewhere else where you would like to (.) rate it? if things changed...

NIGEL: Mmmm (.) I mean if you added in more of the key values of each activity then it could probably go up to a 9 or a 10 ((pause)) because that was pretty much the only thing really...

JUDITH: So for you (.) making sure that the key values are really explicit might might...

NIGEL: Yeah(.) I also think the brain was really good because it encouraged people to put their hands up(.) you can hold something and then throw it as well(.) he had like this brain which when you put your hand up he would throw your way(.)

JUDITH: Oh okay yeah yeah yeah

NIGEL: I think that really encouraged people to put up their hands up because then they would catch it and they would get to throw it back(.)

JUDITH: So(.) that engaged people into the conversation(.) so the activities (.) It sounds like the activities were really fun and engaging and you enjoyed them okay lovely (.)

NIGEL: Yeah(.)

JUDITH: Ok(.) lovely(.) Thank you(.) Next question: would you recommend the programme to a friend and why?

NIGEL : I probably would(.) cos It was quite good(.) and it gave a different viewpoint of things as well((pause)) Even though it didn't maybe change a particular area that you wanted to in that area anyway if you get me (.) because it helped with other stuff linked to that(.)

JUDITH: Going forward are there any other questions or comments that you have about the programme? Or things that you think should happen next?

NIGEL: ((long pause)) Maybe introduce mindfulness into the schools or like (.) like teach maybe in PSE or like in Form in the morning(.) we could just do that(.) I don't know...

JUDITH: So so by doing that what could be the outcome?

NIGEL: People would not like (.) people would behave better probably because they are so excited(.) and this calms me down a little bit(.)

JUDITH: So (.) being ready to be in school and ready to learn and that kind of thing would help(.) it would help with that kind of thing (.) fantastic(.) sounds great(.) Any other comments that you want to make about the programme?

NIGEL: No(.)

JUDITH: It sounds like you really enjoyed it(.) thank you for talking with me(.)

**END OF INTERVIEW**

## **Interview 2 (Staff Member & PSE Leader):**

JUDITH (interviewer): So thank you for agreeing to do the interview(.) if I sit a bit closer to you there (.) so the first question is (.) what is your understanding of the Embrace Life programme and its purpose?

ETHEL (PSE Leader): Hmmm (.) It's a CBT programme to help kids cope with everyday life (.) build resilience I guess

JUDITH: Yeah(.) and what do you think do you think were the benefits of the programme for the young people involved?

ETHEL: Hmmm ((pause)) I think (.) I choose that class on purpose because they're quite a challenging class in there ((pause)) and they don't have the concept of responsibility or understanding that they can choose how they react to things((pause)) It's always someone else's fault and I think it's helped them think about their actions and how they react to certain situations has really helped(.)

JUDITH: So it's really helped(.) That's good(.) What do you think were the difficulties the young people faced in relation to the programme?

ETHEL: Hmmm ((long pause)) there's quite a few kids in that class who already have anxiety issues and (.) I think some of the tasks probably made them feel more anxious ((pause)) errr even they benefitted more in the long run(.) they felt quite awkward doing some of the tasks(.) Like the teaching task (.) and also(.) I think they struggled thinking about things they don't want to think about(.) but(.) I think it helped in the end and the way it was managed was really good(.) mmmmm ((pause)) and also(.) the kids in there are very difficult kids but I think they all benefitted from it so(.)

JUDITH: They all enjoyed it? Oh(.) that's brilliant(.)

ETHEL: Yeah(.) they did(.) yeah(.)



JUDITH: So obviously there were aspects of the programme that they did find (.) challenging or it challenged them a bit more...

ETHEL: but in a good way...

JUDITH: but in a good way

ETHEL: Yeah(.) that's not a criticism(.) it's positive thing because I think ((pause)) it helped them...

JUDITH: To come through it...

ETHEL: Yeah(.) because it's never been presented as that(.) Obviously(.) teachers aren't trained psychologists or social workers(.) although we're meant to be(.) if you look at everything else (.) this was helping them deal with all those things(.)

JUDITH: That's brill(.) What was the benefits of you being involved in the programme?

ETHEL: Mmmm ((long pause)) For me(.) I learned a lot about CBT which I didn't appreciate (.) I learned a lot about how kids think which I wasn't aware of how kids think((pause)) I also I guess ((pause)) I learned a lot about how to deal with certain issues when they arise in terms of ((pause)) challenging it because it can be quite frustrating is blaming someone else that I now get why those kids do that and how they need help thinking it through(.) And when a kid reacts with anger as well (.) I now understand that process as well of how they got to(.) it was really helpful(.)

JUDITH: It's really helped you understand those kids a bit more(.)

ETHEL: Yeah(.)

JUDITH: That's brilliant(.) what were the challenges for you being involved in the programme?

ETHEL: Mmmm (.) the practical challenges because school isn't an easy place to work((long pause)) we're a big school and so communication isn't the best(.) so(.) when you plan something and then someone will say that 'oh(.) this is on this day(.) this is on that day' so the practical sorts of things ((pause)) Hmmm but other than that there were any other challenges hmmm ((pause)) some of the kids were resistant to it hmmm ((pause)) hmmm ((pause)) which I wish I'd had more time to sit with them and talk to them about it and ask them why they were resistant to it which I didn't do because there was too much going on because hmmm ((pause)) three of the kids withdrew and I think that they were kids who could have benefitted from it and I don't really know why they withdrew((pause)) so that's kind of... and one of them withdrew during the programme as well which I wanted to sit down and have more of a chance to discuss with them because they're really withdraw ((pause)) very weird ((pause)) it's the only way to describe it ((pause)) hmmm ((pause)) I wanted to sit down and discuss it with them and I also wanted to contact their parents because they've got a very kind of like ((pause)) I don't know ((pause)) they're very sort of strict and religious and I think they had a different perception of the what the programme was(.) So(.) I just wish I had more time(.) Also(.) I don't just want this programme to just stop because (.) how are we going to then progress it to make it worth-while (.) if it just ends then it's not been worth anything(.)

JUDITH: So you'd like to follow it up and(.) yeah(.)

ETHEL: Yeah(.)

JUDITH: So(.) next time(.) you think you'd spend more time with some of the students(.) explaining?

ETHEL: Yeah(.) 100% (.) And next time(.) I wouldn't need consent if I delivered the programme(.) I wouldn't have that issue ((pause)) because curiously it's the kids that withdrew that could have benefitted the most(.)

JUDITH: Yeah(.) so if it was a within-school intervention(.) you can do that as part of what you do anyway(.) can't you?

ETHEL: Yeah(.)

JUDITH: Yeah (.) That would be really helpful(.)

JUDITH: What was your favourite element of the programme and why? Do you think?

ETHEL: I think all of it was really really good((long pause)) Obviously(.) there is confidentiality and so I can't mention any names(.) But there is one particular pupil who I guess I think (.) got more from it (.) than anybody else(.) I think his background (.) is quite troubled and his the value he puts on education (.) isn't very much and he therefore struggles not because he ((long pause)) isn't able(.) because he is able(.) but because he gets no support or anything at home(.) and they just yeah and ((long pause)) he acts up what happens at home at school but (.) you could see elements of him really getting into it(.) and it was almost like he was a different person at points the way he responded to the programme(.) you know(.) you saw him in a totally different light(.) so that was kind of like really good for me to see because I feel sorry for him because ((pause)) we've got to discipline his behaviour around the school but at the same time you can kind of appreciate...

JUDITH: Where he's coming from...

ETHEL: Yeah(.) And that's all he knows and how he knows how to react he's just copying what he sees at home(.) so(.) I feel very sorry for him(.) but you could see him really responding and getting into it and everything else(.)

JUDITH: You saw his behaviour change did you?

ETHEL: Totally(.) Yeah(.) and he has 1 on 1 intervention in the (.) F block and the teaching support assistant who works with him I sent them all the materials and all the stuff and she was going through with him and talking about it and she said that she noticed a marked difference in his attitude and in his behaviour over there(.) so(.) it wasn't just a kind of one off kind of thing ((pause)) and he spoke to me and said that basically he knows that he can be a bit of an idiot and stuff like that and he doesn't mean to be an idiot(.)and he explained that he felt that it was different he felt ((pause))

that PD wasn't judging him because PD doesn't know him and that every teacher judges him when he walks into a classroom and he feels like he's got ((pause)) no way out because no matter what he does (.) he's always going to be picked on(.) but he didn't feel that way with PD and he felt valued by him(.)

JUDITH: Aww (.) that's great isn't it?

ETHEL: And he did mess around on like (.) two or three occasions(.) but it was minor compared to what he can be like(.) and he apologised to me for that and he said it was because hmm ((pause)) he'd had a bad day that day anyway (.) and it was nowhere near as bad as what it could have been because his behaviour is very erratic(.)

JUDITH: Do you think that was a step forward that he was able to apologise without being prompted or anything and that he realised that it wasn't appropriate

ETHEL: Yeah totally(.)

JUDITH: That's excellent isn't it? Do you think he's been able to generalise what he's learned in the programme then a bit more then (.) because it was consolidated by someone else in the school as well? Was that an element to it?

ETHEL: 100% yeah ((pause)) because he ((long pause)) like I said(.) doesn't think it's fair that people pick on him(.) nobody does pick on him in a sense (.) it's his behaviour and he can't differentiate sometimes his behaviour (.) and sometimes his behaviour he doesn't appreciate how wrong it is because it's all he sees(.) but having someone over there that's talking about it and going through it with him as well (.) he really learned he did understand it more

JUDITH: Great(.) yeah(.) So(.) you'd like to keep that going(.) so(.) what was your least favourite element in the programme and why do you think?

ETHEL: I didn't really have a least favourite (.) I don't think I had one(.) really(.) I found it all helpful ((pause)) well(.) I suppose there was that fear that because I chose a particularly difficult class with lots of problems that they could have ((pause)) run with

it and some of them are (.) quite cruel to each other as well(.) and there was always that fear that that would happen and they would be cruel or that they would because it hasn't got the same constraints a lesson would have and they can say what they like(.) I was always fearful that they would say something cruel...

JUDITH: But they didn't?

ETHEL: No(.)

JUDITH: Isn't that positive? Brilliant(.) And how do you feel students perceived the programme?

ETHEL: Hmmm ((pause)) I think they perceived quite positively but (.) I think also that they had hmmm ((pause)) an unrealistic expectation of what it was going to do((pause)) I think they all felt that by the end of it (.) they would feel (.) better or different or whatever else and I think that they thought there would be a marked difference in how they thought or felt(.) because one of the kids yesterday said to me(.) 'it was really good but it hasn't really done anything!' but I do think that was because their expectations of what the programme was going to do was totally different(.) I think they're kids(.) you know?

JUDITH: So(.) it wasn't anything to do with how the information was presented or anything? It was just that they had an idealistic view of what they thought the programme was going to do for them(.) do you think?

ETHEL: Yeah(.) And especially(.) this came from two of the girls who are ((pause)) being mentored at the moment because they have self-esteem issues and anxiety and ((pause)) real issues with self-harm with one of them(.) I think I thought they thought this was going to provide them with the answer(.) I think it was their expectations of the programme more than the programme itself(.) I don't think they do appreciate what the programme did for them because they can't see those little changes that...

JUDITH: that you've noticed(.)

ETHEL: Yeah.

JUDITH Yeah (.) do you think they still need to understand a bit more that it's more of a journey rather than trying to get them to a certain destination (.) in this number of weeks...

ETHEL: They thought because it was an 8-week programme that at the end of it(.) it would be all sorted and then they'd feel better and it hasn't...

JUDITH: Yeah(.) Do you think they'll be motivated to carry on? And work through things?

ETHEL: I hope so yeah((pause)) hmmm (.) I just think that they need to learn that it is difficult and it's not going to be easy and I don't think(.) as a kid(.) you appreciate that(.) do you?

JUDITH: Yeah(.) you just want things to be gone and(.) you know(.) sorted(.) I suppose(.) so how would you rate this programme out of 10? 1 being extremely unenjoyable for the young person and 10 being extremely enjoyable(.)

ETHEL: 10(.)

JUDITH: Or 1 being extremely useless for the young person and 10 being extremely useful?

ETHEL: 10(.)

JUDITH: 10(.) Fab(.) Would you recommend this programme to another year group? Why or why not?

ETHEL: Yes(.) I would(.) I would probably ((pause)) I don't know ((pause)) the programme itself is really really good(.) but I think it just needs more explanation at the start for the kids(.) so they have a better understanding of (.)you know (.) it's not a miracle answer to everything (.) it's to help you (.) it's not the answer(.) also(.) I think it

would need some follow-up at the end because then I think the full benefit would be found (.) I don't think it's PD's fault because he's the one coming in and doing and it's going to my responsibility to do the beginning of it and the end of it...

JUDITH: I suppose at this point it's quite good that it was a trial and error so you can see what else needs to be added(.) It doesn't sound like anything needs to be taken away...

ETHEL: 100%(.) The programme is perfect- it really is(.) It's just tweaking it(.) so the kids appreciate what it is for and at the end(.) there is a follow-up(.) so it's not just left(.) and they need to continue practicing it to hmmm (.) make sure it works(.)

JUDITH: So(.) they can use the techniques and the things they've learned to help them so that can generalise that later on sort of thing(.) yeah(.) What questions or comments do you have about the programme particularly?

ETHEL: I don't(.)

JUDITH: Apart from so more thought about the beginning and how it gets explained(.) how to follow it up later on(.) the rest of it worked really well(.) Yeah?

ETHEL: Yeah(.) and probably the beginning bit was probably down to me as well because I explained it before PD came in and probably didn't explain it as fully as I should have done(.) but his (PD's) first lesson covered that so (.) it's more I didn't fully appreciate what the programme was going to do at the beginning(.) I should have made more of it with the kids I guess(.) but it's difficult (.) because kids perceive things differently to adults(.) don't they?

JUDITH: They do indeed(.) and sometimes you think all of that makes perfect sense don't you? and then you do it and you realise that if I tweak that I could do that differently (.) Yeah(.)

ETHEL: Yeah(.)

JUDITH: Okay(.) brilliant(.) Thank you very much(.)

ETHEL: No problem

**END OF INTERVIEW**



## **Appendix XX: Examples of Semi-Structured Interview Transcripts (Pilot 2)**

### **Interview 1 (Young Person):**

Assistant Educational Psychologist (GULLIVER): So(.) what do you think were the benefits of embrace life? (.)The programme that you (.) were doing(.) Benefits being useful helpful positive things and if you're happy to we can make a list and I might ask more questions about what you say(.)

ROBINSON (Child 1): Ok ((pause)) Well I think it helped me to stay in the present and (.) it also helped him whenever I face a problem how(.) like emm (.) how to like resolve it and how to act upon it using like assertive actions and things like that(.)

GULLIVER: Can you give any examples of any of the sessions that you particularly ((pause)) found helpful for those things?

ROBINSON: The one where we went through all the different ways like assertive(.) passive-aggressive(.) aggressive ways that you can (.) solve problems helped

GULLIVER: Really good(.) any other things that you can think of?

ROBINSON: Emm the lesson on the acceptance and avoidance also helped about like(.) how to accept problems no matter how bad it is and it can help get weight off your shoulders and like yeah(.)

GULLIVER: Brilliant cool (.) and what do you think (.) were (.) the challenges? What are the challenges of this programme and what do you think could have been improved? By challenges I mean things that are difficult or tricky(.) things that must be overcome

ROBINSON: Hmm(.) there wasn't really much(.) but the fact we had to miss some lessons to do the project could (.) maybe ((pause)) emm have been ((long pause)) a thing(.) other than that I think it was...

GULLIVER: That's interesting (.) what what do you mean by that?

ROBINSON: Like(.) emm cos we did it in our PSE lesson and then we also did it on another week on a day when we actually had a lesson like (.) a normal lesson and we had to miss that to do the project

GULLIVER: Okay okay (.) and were you happy to do that or what was(.)?

ROBINSON: It was fine but I think because we had to do it for a long time we missed a few lessons and we had to catch up on some work(.)

GULLIVER: Okay okay ((pause)) and(.) what was your favourite activity in the programme? ((long pause)) Was there anything specific that you really enjoyed

ROBINSON: I like doing the ice melting task and the finger trap (.) task

GULLIVER: Okay (.) can you tell me about those?

ROBINSON: Well(.) the ice melting task we had to hold ice in our hand and we had to let it melt (.) and feel the sensations and what we felt and notice our thoughts and feelings(.) and then the finger trap test was all about how (.) to accept the problem because if you pull it tighter it won't get any better but then if you ((pause)) push the finger trap you can like release your fingers and you can help(.)

GULLIVER: And how do you think related to (.) you know (.) what do you think those things were teaching?

ROBINSON: About how to (.) accept the problem and notice what's going on (.)

GULLIVER: Cool (.) cool (.) hmmm what was your least favourite activity (.) in the programme?

ROBINSON: Hmmm (.) I didn't really have a least favourite but the Malteser Mindful eating (.) task I thought was a bit ((pause)) different because I've never done anything like that before (.)

GULLIVER: What do you mean by different?

ROBINSON: Like just unusual and a bit ((pause)) like a different way of eating something

GULLIVER: Okay (.) is there anything else you can think of?

ROBINSON: Not really

GULLIVER: How did it make you feel doing that task?

ROBINSON: Hmmm ((long pause)) the Malteser task?

GULLIVER: Yeah(.

ROBINSON: Well (.) I thought it was a bit awkward and ((pause)) just a bit unusual because I've never done that before(.) it felt a bit weird.

GULLIVER: Hmm (.) and sort of going back(.) you've mentioned a couple of points already(.) but what did you learn (.) from the programme I've got a visual prompt here for you which you can have a look at ((shows prompt)) here you go(.) so what did you learn from the programme? What were sort of the overarching things you learnt?

ROBINSON: To hmmm (.) a lot of the mindfulness activities helped me to stay in the present and notice all your feelings and thoughts when there is like a problem so it can help you get it through(.) and to ((long pause)) it kind of made you feel happier and how to do things better so it makes you feel better...

GULLIVER: Okay ((pause)) what do you mean it made you feel happier in what sense?

ROBINSON: So(.) when you do come across a problem and it can make you feel upset (.) the tips that the lessons that we did can help you get rid of that problem and help us to solve it and (.) make it better for us

GULLIVER: Hm-hm (.) okay (.) cool (.) you had a hmm (.) booklet with you didn't you? Hmm (.) what did you make of that?

ROBINSON: Well(.) I thought it was useful because there were lots of things you could do at home and things ((pause)) that would help to carry on the learning and help like(.) so you knew all the lessons you did and you could remember them and go over them again at home so that was good(.

GULLIVER: Did you (.) did you go home and do that or?

ROBINSON: Yeah

GULLIVER: You did(.) What sort of things? What sort of activities in that book did you find helpful or not so helpful?

ROBINSON: Hmm (.) the tasks about like hmmm (.) accepting problems and how to resolve them and (.) how you act on them like being assertive and things that at home helped to solve problems and stuff(.

GULLIVER: And did you use the booklet those booklets in school at all?

ROBINSON: Not really only in the actual project lesson we used them

GULLIVER: Yeah yeah yeah ok (.) emm (.) and in terms of ((pause)) eh hh ((pause)) sort of following the sessions did you find the booklet was helpful or not helpful or?

ROBINSON: I thought it was helpful because you knew where you were at and you could remember all the past lessons and which lesson you were doing and it helped to know which one you were on(.

GULLIVER: Fantastic(.) brilliant ((long pause)) and hmmm (.) ok you've got a friend who knows nothing about the programme someone else in your year how would you describe the program to them?

ROBINSON: Fun (.) helpful ((long pause)) and it has good benefits and outcomes if you do the project

GULLIVER: Can you elaborate on that a bit more? Could you elaborate a bit more on what happens?

ROBINSON: Well you do lots of different lessons and activities to help to ((pause)) give you the benefits and outcomes ((pause)) and learn them...

GULLIVER: What would you say were those those((pause)) in terms of explaining to a friend who doesn't know those outcomes ((pause)) what would you sort of (.) how would you explain those outcomes?

ROBINSON: The outcomes were to help to know how to act on problems and helps to (.) resolve like (.) conflict and stuff(.

GULLIVER: Great(.) right(.) how would you rate the programme out of 10? You've got 1 extremely unenjoyable and 10 extremely enjoyable(.) we'll do it on a scale first which (.) where would you put it?

ROBINSON: Probably about an 8 or a 9

GULLIVER: And why would you say it was an eight (.) or a nine?

ROBINSON: Because I found it enjoyable ((pause)) as well as helpful and it was just a ((pause)) good way to learn things instead of just learning things in a boring way

GULLIVER: Okay okay (.) and in terms of (.) one being extremely useless and 10 being extremely useful ((long pause)) where would you put it?

ROBINSON: Probably about the same an 8 or a 9

GULLIVER: Okay (.) and reasons for that?

ROBINSON: Just because ((pause)) it hmmm (.) with all the lessons you've learnt new things that you didn't know before and now I know new ways to resolve problems and resolve conflict

GULLIVER: And have you found yourself in a situation where you've had to use any of the strategies or not?

ROBINSON: Not really yet (.) but I'm assuming I will in the future(.)

GULLIVER: Okay cool (.) would you recommend this programme to a friend?

ROBINSON: Yes(.)

GULLIVER: And why?

ROBINSON: Because (.) it was very helpful and now I know what to do in the future if anything like that happens(.)

GULLIVER: And do you have any questions about the programme? Anything you want to ask at all? Bearing in mind that it'll go on the recording(.) and the researcher will be able to answer those questions later on(.)

ROBINSON: No(.) not really(.) I think I understood all the project (.)

GULLIVER: Ok(.) the interview is going to finish there (.)

**END OF INTERVIEW 1**

## **Interview 2 (Staff Member):**

GULLIVER: We will now begin(.) okay (.) so what is your understanding of the Embrace Life programme and its purpose?

ARISTOTLE (teacher): So from my understanding it was all about emmm helping ((pause)) lads in my form try and (.) deal with anxiety a bit better(.) I know this generation is becoming a massive issue people don't like uncertainty((pause)) the term snowflake is used quite a lot(.) it's a perfect research project to do (.) with this sort of year group because it's all about helping them understand what's going on(.) helping them understand their emotions and their feelings and how to best deal with that(.) I think the project looked at (.) from a different point of view with the chocolate thing and the different tasks(.) it's looked at how children can think about what's actually happening(.) calm down stay calm and actually make an ((pause)) you know (.) educated decision(.) get advice(.) It's something we've done in form is looking at when you get a dilemma (.) is how are you going to go about making that decision(.) it's all about that sort of stuff(.) That's my understanding(.)

GULLIVER: Have you sort of seen anything in action in terms of what the children are putting in place? Have you noticed anything different?

ARISTOTLE: I think (.) the Malteser tasks and things like that(.) And when you were in there watching the final session... the buttons task and the finger trap ((pause)) it's all about (.) it's unique ways of giving them a task and making them think about (.) okay about how could you then put this into real-life situations? (.) How could you then develop so that if it's an issue in school or at home or homework or a teacher wherever it is(.) think about how you are going to come to an informed decision that you want to really make a good decision on.

GULLIVER: Cool(.) and what do you think the benefits of the programme were for the young people involved?

ARISTOTLE: Yeah (.) first of all(.) the sessions they absolutely loved (.) It's been really really hands-on(.) they've been doing loads of stuff(.) It's not been ((pause)) them sitting there looking at a board or being bored or stuff like that(.) so that's been really really beneficial the way that sessions have worked they've been great (.) and and I know the boys have enjoyed it because they've said in form that they've enjoyed them (.) emm (.) again((pause)) from me(.) it's been great for them because so many these days(.) you get so many emails off parents where ((pause)) students have gone home worrying and panicking about this has happened and that has happened or he's really worried about that or he's extremely anxious about coming in tomorrow or ((pause)) his ECT or his exam or whatever it is and for me it's about them you know? (.) how can they look it and go these are the options I've got? And the dilemmas were about(.) are you going to ask people for advice or are you going to go on your gut instinct or one option is to toss a coin(.) It was quite interesting to see how ((pause)) lads of that age haven't got a clue on their own(.) I'll just toss a coin or I'll just do this(.) It's like well ((pause)) would you ever asked for advice? They never seem to ask for advice(.) Hopefully this project has opened their mind up to how they should be going about making decisions because ((pause)) in Year 8 now you're picking your subjects that you want to do for your GCSE and it's very very early(.) a lot of these boys are so young still like you know (.) they're still just like primary school so ((pause)) for them to be given information how to make better decisions and things is absolutely invaluable for them (.) it's something we never had in school and I wish we did have that because I was very much just go off my instinct or (.) say nothing and it will go away(.)

GULLIVER: Yeah yeah ((laughs))

ARISTOTLE: Say nothing and it will go away and hopefully this ((pause)) has said: 'do you know what ((pause)) if you say nothing it's never going to be solved'(.) You've got to seek help and seek other people's opinions and that's sort of how I've developed my thinking(.)

GULLIVER: It's interesting that you've made that point about Year 8s emmm ((pause))

ARISTOTLE: Yeah



GULLIVER: that sort of time in school where they are making those decisions((pause))

ARISTOTLE: Yeah

GULLIVER: do you you know what what what point in the year do they make that final decision?

ARISTOTLE: I think it's towards the end of the year(.)

GULLIVER: Of Year 8?

ARISTOTLE: Yeah yeah (.) I think so(.) What GCSEs they want to do next year((pause))

GULLIVER: All right okay.

ARISTOTLE: So the they're obviously(.) they have the option to change when they are in Year 9 within the first couple of months but ((pause)) it's pretty much at the age of 13 you're making what could be ((pause)) life-changing decisions really(.) you know? What you're going to be doing in your future you know ((pause)) It's quite early(.)

GULLIVER: Yeah and and ((pause)) is anything specifically from the tasks that you think that might apply to that situation? Like that you can remember?

ARISTOTLE: ((pause)) Yeah 100%(.)The one with you finger one where you had to basically ((pause)) the choice to avoid it or actually confront someone and say 'This I'm not happy with this' (.) 'This is an issue we need to speak about it' all the time or ((pause)) basically what happens is you tend to end up with no one says anything to you(.) the amount of times I've said come and speak to me(.) it's my job as a form teacher if you've got any issues(.) come and speak to me(.) come and speak to me(.) You might get one or two who'll openly always talk to you but you've got 28 lads in a form and 26 aren't saying anything to you and it always ends up in email(.) this has been building up(.) (.) I'm not happy with this ((pause)) I'm not happy with that(.) It's like if you'd have spoken to me after the first incident(.) we could have deal with

that(.) I think that fingertrap one was absolutely perfect because so often((pause)) there was an incident where two boys in my form I'm not gonna name names obviously ((pause)) anyway where basically their friendship had broken down and one boy wanted to move away and the other boy was giving him a hard time because he wanted to move away in form and that kind of thing ((pause)) it ended up with an email from the parent basically ((pause)) saying to me I'm not happy about this (.) this and this and I was almost like the boys never came and spoke to me about that(.) If there is an issue then like that thing says(.) is that (.) the finger trap(.) don't put it off actually deal with it(.) so(.) now I've got this parent who's upset(.) this boy has been upset for the last 6 weeks because he's fell out with this boy(.) doesn't want to be friends with him anymore ((pause)) but at no point have they came to me and said 'Sir(.) do you mind can I have a quick word because I'm not happy about this' or 'I fell out with whoever it is and I'm not happy' (.) so I've always said don't let things build up(.) If you avoid it(.) the longer you put it off you'll never get a solution(.) whereas there's got another boy(.) even for the smallest thing(.) he'll stay behind and say: 'Sir(.) What do you think about?' a lot of the time it's just speaking to the Head of Year and say 'ok what do you think?' Ok we'll sort it(.) Straight away whoever is causing him problems(.) the Head of Year is brilliant... so whoever is causing problems he's straight into his office and it's dealt with(.) so I think that finger trap is perfect for that sort of thing(.) yeah(.)

GULLIVER: Yeah(.) and do you think there are any difficulties involved with the programme for the young people? ((pause)) Do you think that there was anything they found tricky or?

ARISTOTLE: Emmm ((pause)) I think ((pause)) some of the more immature students maybe with the Malteser task ((pause)) again I saw when we did the final task that some of the more immature ones were a little bit like(.) maybe(.) they don't quite understand because they do the task and afterwards it's explained ((pause)) which I think is a fine way of doing it(.) but maybe for young boys(.) it's like: 'Why are we doing this?' this seems a bit(.) you bring it to your ear and everything (.) you're rubbing it on your lips(.) They may feel(.) some of the immature ones: What is this we're doing(.) sort of thing? but then(.) once it's explained I think it's all ok(.)

GULLIVER: So that's really interesting(.) so you're saying because it explains afterwards...

ARISTOTLE: Yeah and I do think it's a good way of doing it because then they think why are we doing this... but actually in that moment when they are ((pause)) actually bringing it to their ear(.) you might lose that sort of you(.) they start messing around(.) they start laughing and giggling(.) you might lose what it's supposed to be about- that mindfulness(.) So(.) maybe I don't know how you do that because obviously there's pros and cons to doing both ways(.) so you want them to do it(.) and then understand(.) have a think for themselves- Why are they doing this? and then explain it But(.) at the same time(.) that can then have them being: 'what are we doing this for(.) sort of thing?'

GULLIVER: Yeah

ARISTOTLE: Yeah I mean there's pros and cons to everything I suppose(.)

GULLIVER: Any other things that you can think of that they may have found difficult or? It doesn't matter if there aren't any other things(.)

ARISTOTLE: No(.) Not particularly no (.) it was all pretty well explained(.) again maybe if there was a little bit more of ((pause)) ok(.) so you've just done that ((pause)) can you then go away and give examples to me of everyday school life? For example the finger trap- write down examples(.) so you know something written down and they discuss that maybe(.) so then they can say that's for that that's for that that's for that(.) they have a bank of work then to go from(.) so where they go- why did we do that? That was all about understanding our emotions and feelings(.) ok(.) Where would I use that? actually(.) maybe writing something down ((pause)) recording something down in the booklets(.) Maybe something like that(.)

GULLIVER: For you what with the benefits of the programme for you obviously as the form tutor?

ARISTOTLE: I think it's been fantastic(.) I'm really happy we've done it because honestly I'm not just saying it ((pause)) for the whole time ((pause)) it was my first form

time with them(.) I said: 'Please if you have any issues please come and see me' (.)  
And I get it there lads and they don't want to show weakness(.) They feel like you know  
'it's weak to speak' sort of thing(.) And I get it completely how they feel and that's how  
I would have felt back then(.) and that's why I'm always trying to appeal to them all the  
time 'Please if you have any issues let me know' because I cannot deal with something I  
don't know about and I bang on and on and on about that(.) and this has really been  
great because this has just reiterated that(.) it's giving them an idea of OK how can we  
deal with this? What's the best way to deal with this? And understanding that to deal  
with situations very often you have to speak about it(.)

GULLIVER: And have you noticed a change in that sense?

ARISTOTLE: I've probably been ((pause)) I've noticed that I'm having more and more  
lads come and speak to me now which has been great(.) At the start of the year(.) there  
was probably one boy who would ((pause)) I guess for every small thing he would be  
and that's fine I don't mind dealing with him(.) but now there is more and more boys  
who come looking (.) going- Sir! (.) you know and rather than it getting to the stage  
where I'm getting a big ((inaudible)) from parents(.) it's getting dealt with and nipped in  
the bud straight away which is better for everyone maybe(.) I think maybe they're taking  
it on board and it may just be coincidence but I doubt it is(.) Since this research project  
that's definitely got better which has been good(.)

GULLIVER: Cool cool ((pause)) Brilliant(.) and ((pause)) what were the challenges for  
you being involved? What things how has it affected you?

ARISTOTLE: Hmmmm ((pause))

GULLIVER: Like It might be logistically((pause)) like you know it might be things  
that have come up from the project ((pause)) like what the kids have been talking  
about(.)

ARISTOTLE: Do you know what (.) to be honest(.) there hasn't been(.) Like we  
finished last week so I haven't spent a lot of time with them since then(.) but I can

probably ask them for a debrief about what they thought off the record or whatever(.) I've not really heard that much(.) it's been (.) logistically(.) it's been absolutely fine(.) that was fine(.) it was well organised(.) he was consistent(.) he was in every week(.) That was all good(.) I wouldn't really say there have been any issues for me(.) personally(.)

GULLIVER: Brilliant (.) what was your favourite element of the programme?

ARISTOTLE: I loved how hands-on it was(.) I think a lot of the times ((pause)) this idea of this 'if you just speak to me(.) I won't learn' (.) whereas with this it was all about ((long pause)) being active really(.) they were always active; it was always them involved(.) You know it would have been easy for PD to stand there and go: 'Right(.) can I have a volunteer? You're going to come to the front and you're going to sit with me and I'm gonna do this and everyone else is going to watch' (.) but actually he had that trust(.) I think he worked out that they're a pretty mature group(.) they're a nice group of lads(.) he was pretty (.) he just sort of trusted them to get on with it(.) a lot of teachers with chocolate or whatever it might be(.) they might not have that trust: 'I couldn't possibly give them a Malteser because they'll just mess around and eat it!' Whereas(.) he (PD) was brave(.) he took risks and it worked really well(.) The kids enjoyed it and they got a lot out of it ((pause)) and as a teacher the worst lessons(.) and you probably know yourself (.) the worst lessons are those when the kids just sit there and listen(.) I know (.) as a teacher(.) I get bored of someone speaking at me(.)

GULLIVER: ((laughs))

ARISTOTLE: So the fact that it was so hands-on and they were so active which I thought was was (.) the best part of the project(.) personally(.) and again(.) It was relevant(.) like I said to you ((pause)) It was really relevant to this day and age(.) It's such a big issue at the moment(.) Kids just(.) it's called the snowflake generation for a reason(.) They just do not deal with any kind of uncertainty or anxiety(.) they just really struggle and that (programme content) again was perfect(.)

GULLIVER: Cool ((pause)) what was your least favourite element of the program?

ARISTOTLE: Least favourite? ((long pause)) I wouldn't know really(.) That's an interesting question(.) It's all been ((pause)) from what I've seen it's all been pretty good(.)

GULLIVER: How do you feel the students have perceived the programme? I know we're sort of covering...

ARISTOTLE: I know I know ((pause)) I think they really enjoyed it(.) I think maybe there has been a little bit of confusion at the start with(.) you know(.): 'What's this all about? What are we doing?' And I think I know a lot of the boys(.) because a lot of the time(.) an email will go home to parents and they will just send it back and then all they (the kids) know is it's a research project and they weren't quite sure what they were doing(.) but that's been fine(.) again they really enjoyed it and there's been no real no issues(.) no one has come to me afterwards and asked me: 'What was that all about? Why have we done this?'

GULLIVER: ((laughs))

ARISTOTLE: like 28 lads(.) and I haven't had one complaint(.) emmm the boy who didn't take part I imagine that was just a case of (.) his parents not understanding what it was(.) I don't know the boy that well(.) but he's a bit quiet(.) I don't really know the parents well at all(.) I can only imagine that it's a breakdown of communication really(.) they've misunderstood because(.) this is something that (.) particularly at this age(.) I'm not sure how it would work at year 10 or 11(.) maybe they might not buy into it as much(.) but particularly Year 7 or 8 you know to deal with anxiety uncertainty is a massive issue the school needs to cover really(.) so(.) I think particularly for those age groups I think it works really well(.)

GULLIVER: In terms of uncertainty in school(.) what things do you think might create that uncertainty?

ARISTOTLE: I think for boys a lot of the time it's just something that's new like coming to a grammar school from a primary school(.) It's a massive step up(.) massive step up(.) and we get loads of kind of emails in the first 3 months about: 'He's really

anxious about this; he's really anxious about this' (.) You've almost got to((pause)) be with the lads(.) you know: 'We're doing this; were doing this; and then we're doing this' (.) it's going to be fine; it's going to be fine(.) as a school(.) we particularly have a group of Year 7 form tutors(.) so(.) they will have them for the whole of year 7(.) pass their form on and start again in Year 7 ((pause)) which is quite an interesting way of doing it(.) I then get the group from Year 8 to year 11(.) so(.) they (Year 7 Form Tutors) are seen as the specialist they're the ones that really understand what the students need ((pause)) emmm because there is a lot of uncertainty ((pause)) again it's about you know (.) the expectations we have here some students struggle to deal with that to start with(.) by year 11 they understand the policies and expectations but uncertainty a lot of the time is when things are new(.) isn't it? And then they panic and say: 'I've never done this before' (.) 'I'm getting homework every day' and you know it's just the step up that they struggle with and makes them anxious(.) I suppose.(.)

GULLIVER: Cool ((pause)) how do you think the program could be improved? Is it anything you might change about it or?

ARISTOTLE: No(.) again like I've said maybe about putting it into sort of everyday school life(.) once you've done the friend task or the finger trap or Malteser task or whatever it is(.) get them to write down like(.) right(.) you've got 5 or 10 minutes now give me an example of how this affects your every single day life in school(.) Give me an example that you've had(.) write it anonymously(.) and just say give me an example that you've had in your school or your life so far that you've struggled to deal with(.) whether it's an issue you've had (.) or anxiety or uncertainty(.) Write it down and pass it on to the other person or swap it and we can see how everyone compares and contrasts(.) How would you deal with this issue? How should they deal with this issue? and really work out how to deal with those dilemmas I suppose (.)

GULLIVER: Okay (.) Some more of ((long pause)) emmm that application?

ARISTOTLE: Yeah(.) exactly to that everyday school life for them(.)

GULLIVER: You were saying not so long ago that maybe for Year 10s or Year 11s(.) they might not be ((pause)) they might not take to it as well as the younger ones(.) What improvements ((pause)) do you think could be made to support those...?

ARISTOTLE: I think I think you would just change the tasks(.) I just know how our Year 10 and 11s are(.) they can be a little bit giddy(.) a little bit silly(.) a little bit like ((pause)) you've almost got to convince them that this is what we're doing(.) They start to go(.) 'Well why are we doing this? Why are we doing this?' a lot more(.) Year 7 and 8 in this school(.) if you tell them to jump they'll just jump(.) They'll say: how high? kind of thing.

GULLIVER: ((laughs))

ARISTOTLE: Year 10 and 11 I think you'd face ((pause)) particularly the tasks(.) the Malteser and that sort of thing(.) you could have the same concept absolutely no question(.) but you'd probably just changed the task you were doing because I know a lot of them would be like: why are we doing this? You can probably imagine(.)

GULLIVER: In terms of a scale 1 to 10 for the young person(.) 1 being extremely unenjoyable for the young person and 10 being extremely enjoyable for the young person(.) where would you place the programme on this scale?

ARISTOTLE: I'd say it's easily a 9(.) Even a 10(.) they really enjoyed it(.) Like I said it's been engaging it's been hands-on(.) It's not been just someone stood at the front just speaking at them(.) which they love that's the way you've got to teach this day and age(.)

GULLIVER: In terms of 1 being extremely useless and 10 being extremely useful where would you put the program?

ARISTOTLE: Probably ((long pause)) an 8 or a 9(.)

GULLIVER: Why would you put it there?



ARISTOTLE: It's massively relevant for this day and age and that's the main thing(.) that's why I was so happy we were doing it emmmm ((pause)) and again maybe not a 10 because a lot of the boys- it's not PD's fault- but they might walk out and think we just done this(.) and it's getting them to think about everyday life like I've said before (.) In everyday life how are you going to apply this? And it's sort of how far can the programme go to make sure students are acting in this way? So that from now (.) so they've done the project how is that going to change their everyday life? It might be a review that I do in PHSE? Where we sit down and we say so we're going to do this task and then you're going to write down things that have happened since the project and how you've dealt with it differently(.) So(.) maybe ((long pause)) if you were going to improve it at all it would be that over lasting impact is (.) Are they going to record what they've done differently in the next 6 months? so from now till summer(.) how has this project changed their life? Is there something in place that could measure that or that can judge that? Obviously interviews and questionnaires help (.) but it's it's the next six months- what's going to change? Do you understand what I mean by that?

GULLIVER: Cool (.) yeah that's really really helpful(.) Would you recommend this program to another year group? And why or why not?

ARISTOTLE: Well we've pretty much just touched on that there(.) In Year 7 and 8 possibly Year 9 would be fine(.) I think Year 10 and 11(.) it would work ((pause)) but you'd sort of have to change the tasks that you're doing((pause)) and obviously the issues they face are a lot different to ((pause)) sort of Year 7 or 8(.) Year 7 or 8 most of the issues are in this place (school) ((pause)) Year 10 and 11 there are other things going on outside of school- might be girls or whatever it is that goes on(.) so things would change quite a lot(.) so again it's just making sure the tasks are relevant and they're appropriate or they're going to engage those higher end year groups(.)

GULLIVER: Brilliant(.) Have you got any other questions or comments about the programme at all?

ARISTOTLE: No(.) Maybe we could look at bringing in how are we going to measure it the impact it's had(.) maybe it's a questionnaires in 6 months' time(.) I feel that could be quite useful thing for yourselves and for me(.) in particular(.) is how has it changed

my students lives? Have they thought about what they've done and implemented it into their life? In the summer term or whatever it might be? That would be quite useful(.)

GULLIVER: Brilliant(.) Thank you very much(.)That's very helpful(.) I'm going to end the interview there(.)

## Appendix YY: An Example of a Coded Interview

Codes, reflections and comments are written in purple.

### Interview 3 (Pilot 1)

JUDITH (educational psychologist): Ok(.) right (.) so (.) the first question is (.) what do you think were the benefits of the Embrace Life programme that you have been doing? The benefits are the helpful useful positive things that you took from the programme(.) mom let's make a list and I may ask you some more questions about what you say(.) Is that ok?

MAGGIE (Child): Like we could learn how to look at situations in a different light(.) So like if we used to look at them and get quite angry(.) we could actually be calm and find a different way to approach situations and like look at how other people might approach it with different mindsets and stuff like that *Different perspectives; developing of empathy; possibility of using different approaches*

JUDITH: Brilliant

MAGGIE: Yeah(.) and we learned how to stay calm or like how to control our breathing and stuff and not like worry as much if we had exams and stuff like that *Helpful tools to deal with worry*

JUDITH: Ah(.) ok(.) And have you have you so have you practiced that outside of the sessions as well? Have you been able to sort of use the things you've learned as well?

MAGGIE: Yeah(.) Yeah (.) a couple of times because we've had a couple of tests so....

JUDITH: Yeah(.) so it's been a good time for you to practice some of those things((pause)) ok(.) what do you think are the challenges or things that could have been improved with the programme? so the challenges are sort of the difficult or tricky things that you would have overcome? again(.) we will make a list of all the things and I may ask you some more questions about that as well(.)

MAGGIE: So(.) if we wanted to answer a question you have to catch this brain (.) and it was like thrown at you and it like (.) in a way it made me want the answer less because I didn't like the fact that I had this brain being thrown at me(.) because it was a bit nerve-racking when some of the other classmates had it (.) Like at one point(.) it got chunked at someone very hard and that was a bit worrying(.) and like sometimes (.) people messed around a bit and so it was hard to focus a bit more (.) but apart from that it was pretty good... *The brain with this student discouraged participation. How to ensure this doesn't happen in Pilot 2?*

JUDITH: Pretty good(.) Fab(.) So what was your favourite activity in the programme and why?

MAGGIE: Probably when we made the decision plan because he gave us chocolate and we had to decide the best way to share the chocolate with your friends(.) so we had a step-by-step way to do it so we had to like talk to our partner to find out if they had the same ideas as us and like (.) think of more than one different idea and choose the best one and then plan it out so that we had like an idea of what we were doing so that we can eat the chocolate(.)  
*Prompting more logical, reasoned approaches to resolving problems*

JUDITH: So you enjoyed that one? ((laughing)) Did you get to eat the chocolate as well?

MAGGIE: Yeah ((laughing))

JUDITH: So(.) what was your least favourite activity?

MAGGIE: Probably the mindfulness just because like ((pause)) some of the time it was a bit awkward when some of your friends were laughing around you and you couldn't like stay calm as much (.) it felt a bit uncomfortable sometime(.) *Reduced engagement heightened feelings of self-consciousness*

JUDITH: Did the others find that as well?

MAGGIE: I think so(.) a couple of my friends said they found it a bit awkward(.) He said to shut your eyes and half the class weren't and it was a bit awkward when you knew the other people around you were looking at you... [Self-consciousness and awkwardness re: mindfulness](#)

JUDITH: Do you think (.) do you think practicing that kind of thing me on your own would probably have been better (.) rather than as part of a group?

MAGGIE: Yeah because that was a bit uncomfortable...

JUDITH: Yeah(.) So just that one(.) okay(.) lovely(.) so(.) what did you learn from the programme?

MAGGIE: Like how to look at situations differently rather than just getting angry at first (.)and being worried all the time(.) it kind of made look at it so you could calm yourself and think of a different way to approach it [Fostering a way of confronting the difficulty](#)

JUDITH: Okay(.) yeah ((pause)) I have a prompt sheet here ((long pause)) to remind you of some of the things you did(.) Does that remind you of any other things?

MAGGIE: Yeah ((long pause)) The string one we had to all stand on chairs ((pause)) not everyone just some people (.) and then we looped it around the classroom to show how everything was connected(.)

JUDITH: Oh(.) right(.)

MAGGIE: Oh(.) and we did the head basket so a boy in our class had to put it on his head and everyone had to like throw a ball in and put a positive or negative idea in the basket(.) Hmmm((pause)) the finger trap was like that you can't always pull away from a situation(.) you have to(.) like(.) relax and let it go first(.) That was mindfulness (.) tapping the bowl thing(.) The ice thing you put it in your hand and feel everything that was happening so like you could focus a bit more in it and try and find ways not to focus on the pain(.) I think the

sticky note on your head was like (.) so you could talk to your friends in a different way if you had like an argument or something(.) so you could say like(.) how they made you feel(.)

Could relate the metaphor of the finger trap to real life

JUDITH: Okey(.) doke(.) right (.) brilliant(.) what are your views on the Embrace Booklet?

MAGGIE: It was good because it had different like ideas in it (.) so you could look at it and think that someone else might feel differently to you(.) It had lots of different activities and then there was homework as well(.) so we could like do it at home(.) and sit on your own and think about stuff more(.) Differing perspectives acknowledged; increased awareness?

JUDITH: And how did you find (.) how did you feel about the homework?

MAGGIE: It was good(.) yeah(.) Not everyone did it because some people don't do their homework half the time ((laughing))

JUDITH: ((laughing))

MAGGIE: but like I did it and it kind of helped because we might have done it once in class(.) but you could focus a bit more at home and think about it more(.)

JUDITH: Yeah (.) okay(.) that was good(.) And how would you describe the programme to a friend who didn't know about it?

MAGGIE: It was really good because like (.) it taught you like (.) how to look at stuff and it might like (.) change your views on when someone ((pause)) when you're having an argument or something you might look at differently and probably sort it out quicker(.)

Looking at different perspectives is valued and may help with conflict resolution

JUDITH: Have you had any personal experience of that since? Have you used any of the techniques when things have happened?

MAGGIE: Yeah(.) Like stuff at home that happened (.) so you can like ((pause)) calm down quicker and talk it out

JUDITH: So(.) that's been very helpful to you(.) that's great(.) how would you rate the programme? Firstly(.) by how much you enjoyed it? 1 being extremely unenjoyable and 10 being extremely enjoyable?

MAGGIE: 6 or a 7(.)

JUDITH: Fab and what about from 1 to 10 as well...from extremely useless to extremely useful?

MAGGIE: A 7(.)

JUDITH: Is there anything that you think that could help it be ((pause)) or you to rate it higher on the scale(.) do you think?

MAGGIE : Mmmm ((pause)) like make sure that everyone is doing the stuff(.) like it was a bit awkward when someone else wasn't taking part and half of the class were(.) It just made it a bit uncomfortable some of the time(.) like in the mindfulness when you closed your eyes and you felt like everyone was like watching you and then it made it a bit more uncomfortable Engagement of all valued, especially re: mindfulness

JUDITH: Ah right okay (.) So(.) if everyone had been fully engaged like you wanted to be(.) you probably probably would have got a little bit more out of some of the things(.) fab(.) What questions or other comments do you have about the programme?

MAGGIE: ((long pause)) Don't think I have any(.) it was good(.)

JUDITH: You enjoyed it(.) yeah?

MAGGIE: Yeah(.)

JUDITH: So(.) you don't want to make any more comments(.)

MAGGIE: No I don't think so (.) the only thing I found uncomfortable was just the brain because it got thrown really hard once and kind of like made me feel uncomfortable some the time(.)

JUDITH: Okay.

MAGGIE: Oh(.) another point(.) we didn't actually do it in the end we were going to teach another class(.) but I didn't feel very comfortable doing that ((pause)) I've got (.) not really bad (.) but a bit of anxiety and so I don't really like talking to people as much around my age(.) So(.) when we were going to teach another class(.) that was a bit uncomfortable(.) we didn't do it in the end; we taught people in our own class(.)

JUDITH: That was a bit better(.)

MAGGIE: Yeah(.) we knew them more(.)

JUDITH: Was that in smaller groups then or?

MAGGIE: Yeah(.) we were in groups of four or five(.) so we could do our activity which was one of these (refers to pictures on prompt sheet) and then teach it to people in our class(.) it was more comfortable doing it with people you knew than people rather than in another form who we might not know people there(.)

JUDITH: What do you think (.) what ideas have you had about how to sort of go forward with this now that you've finished the programme? What do you think we be a good idea to help going forward?

MAGGIE: Hmmm((pause)) I don't know(.) Make sure that everyone is fully involved because it does help and like it changed how I think about stuff(.) make sure more people get



a chance to do it(.) Just everybody takes part(.) not just half the class(.) and some don't

Engagement stressed as important again

JUDITH : With more with more of the form group (.) sort of aware of what the programme is(.) it would help everybody(.) I think(.) then(.) Yeah?

MAGGIE: Yeah.

JUDITH: That's brilliant(.) Thanks very much MAGGIE for coming into the interview(.)

**END OF INTERVIEW**

## **Appendix ZZ: Initial Codes Pilot 1**

**RQ7 What do those involved with the programme perceive as the benefits of the programme?**

### **Benefits (Questionnaire Data YP)**

- Acceptance (2)
- Coping with stress/anxiety (3)
- Looking at the positive and negatives
- Understanding mindfulness
- Working with new people
- Ways to be calmer (2)
- Ways to handle new situations in different ways (4)
- Positivity
- Helps to clear the mind during times of stress
- Helped to not run away from difficulty
- Confidence-building
- Assertiveness
- The class became closer
- Different view on life

### **Coding of descriptions of the programme:**

- Way of feeling less unsure
- Useful if you have enough time to try out techniques
- Boring
- Fun (4)
- Helpful in dealing with feelings of anxiety (2)
- Connecting with feelings
- Helping with difficult situations
- Helpful
- Helps people cope with things
- Helps people consider differing perspectives or approaches
- Helps people consider different ways of talking to people
- Different kind of lesson
- Useful
- Learn ways to control anger and uncertainty
- Make you feel insecure as you have to share your views
- Relaxing

### **Coding of what YP said they learned:**

- Acceptance (3)
- How to deal with uncertainty in ways appropriate to the situation (3)
- A new way to cope with different things
- How to feel less anxious
- How to deal with stress (2)
- Patience
- That it's okay to be uncertain
- Not to run away from difficulty
- Different perspectives on situations and people's emotions
- Impact of actions and words on people
- To be calmer
- How to calm down and sort situations
- How to control anger
- How to be respectful and assertive

### **Benefits (Interview Data YP)**

- Reframing perspectives (2)
- Confidence
- Thinking skills
- Positivity
- Understanding that there are different approaches to situations (3)
- Help with problem solving
- Normalising uncertainty
- Helpful
- Different/ New perspectives (3)
- Understanding the benefits of facing adversity (2)
- Helping to develop empathy
- Helpful tools to deal with worry
- Helpful ways to confront difficulty
- Prompting more logical, measured approaches to problems
- Helped with relationships

### **Benefits (Interview Data; Staff)**

- Promoted young people to reflect on their behaviour and situations
- Challenge viewed as positive
- Learning about CBT
- Increased understanding of how young people think
- Increased proficiency in dealing with behaviour issues
- Extremely positive effect on one pupil
- Some tasks increased anxiety in the short term but were beneficial in the long-term.
- Having an external person to deliver session helpful for children with behavioural difficulties

**RQ8 What do those involved with the programme perceive as the challenges associated with the programme?**

**Challenges (Questionnaire Data; YP)**

- Still having difficulties after the programme is complete
- Worry more now as it has opened up ideas that I hadn't considered
- Being honest and sharing intimate details (2)
- Teaching skills to other students
- Boredom (2)
- Disruptive behaviour from some students during the programme (2)
- Stressful due to lack of time to do activities
- Signing loads of forms
- Fearing that they would answer questions incorrectly
- Fear of being hit by the soft toy brain when answering questions
- Concentration issues (2)
- Not understanding tasks (2)
- Not getting along with people who were assigned his/her group
- Stressful (general)

**Coding of descriptions of the programme:**

- Mixed review- positive and negative

**Challenges (Interview Data; YP)**

- Sharing personal details publicly
- Less people contributing due to fear of sharing
- Boredom (2)
- Lack of understanding of the purposes of the tasks
- Use of the brain toy to stimulate discussion was off-putting
- Self-consciousness during mindfulness
- Boundaries during the session
- 

**Challenges (Interview Data; Staff)**

- Systemic practical challenges
- Needing consent and/or assent; some children who would have benefitted opted out
- YPs' unrealistic expectations of the programme
- Concerns about how to embed the programme principles after the programme has finished
- Follow up important
- Children may not be able to appreciate the impact on them
- Better explanation at the start of the programme- useful

**Researcher-derived codes (YP)**

- The construct boring could reflect teenagers' common response to school-based activities and/or novel things that make people feel uncomfortable or self-conscious.

**Researcher-derived codes (Staff)**

- Ethel views that the programme had an impact on one child with social and behavioural needs but her construction of his difficulty lies within child and that his perspective (teachers judging him) was inaccurate. Could it be that the programme aligns with school views of a within-child approach and that is why it is viewed positively by Ethel.
- Was it the researcher's relationship and lack of judgement of child that brought about change or the programme content?

## **Appendix AAA: Initial Codes Pilot 2**

### **RQ6 What do those involved with the programme perceive as the benefits of the programme?**

#### **Benefits (Questionnaire Data YP)**

- Skills developed to help deal with being unsure/uncertain (7)
- Understanding how to focus more on the present (1)
- Increased confidence to deal with being uncertain (1)
- Feeling more secure (1)
- Enjoyment, positivity and helpfulness (4)
- Clarity: increased focus, concentration and clear thinking (2)
- Increased value placed on being assertive (1)

#### **Coding of descriptions of the programme:**

- Fun and wacky way to learn about real problems!
- Understanding feelings
- Helpful/Useful (6)
- Calming
- Fun (5)
- Helps you deal with problems/situations (2)
- Helps you to focus
- Helps you to focus on the present

#### **Coding of what YP said they learned:**

- Acceptance instead of avoidance
- Normalising uncertainty
- Differing perspectives
- Mindfulness/meditation (3)
- Value of assertiveness (2)
- How to focus
- More present
- Dealing with difficult situations & problems
- Value of reasoned action

### **Benefits (Interview Data YP)**

- Skills acquired: conflict/ problem resolution; being more present; using NALA (3)
- New perspectives: Acceptance reduces emotional strain
- New perspectives: New ways to approach problems
- Mindful eating helped increase savouring/appreciation of food
- Awareness of how situations are approached (acceptance vs. avoidance)
- Perceived behavioural change or intention to change: Improved reflectiveness (1)
- Helped to relax
- Helped to be at one with the environment
- Reflection on behaviour and potential impact on others; modification of behaviour based on reflection
- Understanding when skills may be best used

### **Benefits (Interview Data; Staff)**

- Snowflake generation- YP are less able to deal with difficulties; uncertainty therefore programme is beneficial
- Helping children to make educated decisions deemed valued
- Programme emphasised acceptance vs avoidance/suppression and this was deemed valuable; acceptance linked to problem resolution
- Perceived increase in students being more open and asking for help
- Hands-on interactive approach (2)
- YP were trusted to engage in work independently
- YP were treated as young adults- opinions valued etc.
- Help understanding and managing emotions
- Help understanding feelings of others
- Fostered co-operative working amongst YP
- Observing YP with difficulties adapt and cope well with the programme- valuable
- Improved belonging
- Parents' reluctance for children taking part may stem from their own insecurity or construction of their child's difficulty rather than their child's actual needs- new insights
- Enlisting support from adults viewed as a way of helping to resolve issues
- 'It's weak to speak': YP may perceive asking for help as weak; may therefore engage in avoidance/suppression
- Important that problems are dealt with early on
- Year 8 viewed as a pivotal time for YP- more uncertainty re: picking subjects etc.

**RQ7** What do those involved with the programme perceive as the challenges associated with the programme?

**Challenges (Questionnaire Data; YP)**



- Ignorance is bliss- having to think about things not considered previously
- Clarity- not understanding purpose
- Being unsure
- Boredom
- Nothing (8)
- Missing lessons for the project
- Difficult homework
- Boredom; having to do it at all (3)
- Struggling to develop new skills (1)

#### **Coding of descriptions of the programme:**

- ‘Boring hippie nonsense’; ‘waste of time’ (2)
- Confusing

#### **Challenges (Interview Data; YP)**

- Missing lessons
- Self-consciousness and awkwardness in response to something new/different
- Discomfort
- Social desirability and being honest in conflict
- Skills not generalised/ no opportunities to use skills for some- e.g. re: NALA; acceptance vs. avoidance (2)
- Learning new skills not necessarily helpful e.g. meditation
- Boring tasks; tasks dragging on (2)
- Homework unappreciated (2)
- More complex or harder dilemmas needed

#### **Challenges (Interview Data; Staff)**

- Grounding programme activities more in the real-life of the students; drawing on YP’s own issues of uncertainty/conflict more
- Explaining or reflecting on the task afterwards was deemed a challenge for kids taking tasks seriously and/or being mindful
- Programme less suitable for older students; approach would need to be adapted – alpha males, group dynamics, silliness, respect (2)
- Thought needs to be given to the lasting impact and follow up
- Difficulties engaging with mindfulness
- Environment not suitable for the programme- needs to be quieter, with less interruptions; a closed space
- Perhaps a shorter programme (no reason provided for this view)
- Universal approach not valued; should be smaller groups of YP who need this work

#### **Other perceptions (Staff)**

### **Researcher-derived codes (YP)**

- The construct boring, waste of time, boring hippie nonsense, ‘had to sit through it’ could reflect teenagers’ common response to school-based activities and/or novel things that make people feel uncomfortable or self-conscious.
- The mention of more complex dilemmas could reflect the high standards grammar school kids have for themselves within a context that emphasises academic brilliance; this could be in conflict with the programme with its emphasis on skill development. This need for complex content could then also influence perceptions of boredom.

### **Researcher-derived codes (Staff)**

- Aristotle may harbour unrealistic expectations of mindfulness activities that reflect the school system expectations (i.e. shouldn’t laugh during mindfulness; need to take it seriously) which may be in conflict with researcher view of mindfulness (observing how we approach these tasks- why does it feel silly? What does it feel like when that is the case?)
- Sappho may harbour frustration/ dissatisfaction for how well-being/approaches to promoting well-being are considered within this grammar school setting and thus emphasises the interruptions and the lack of professionalism from other staff repeatedly throughout interview.

## Appendix BBB: Supporting Extracts for Each Theme and Subtheme

Note: Quotes from Pilot 1- black; quotes from Pilot 2- blue

**RQ6 What do those involved with the programme perceive as the benefits of the programme?**

Theme	Sub-theme	Illustrative quote(s)
Strengthening 'Snowflakes'	-	<p>“you get so many emails off parents where ((pause)) students have gone home worrying and panicking about this has happened and that has happened or he's really worried about that or he's extremely anxious about coming in tomorrow or ((pause)) his ECT or his exam or whatever it is and for me it's about them you know? (.) how can they look it and go these are the options I've got? And the dilemmas were about(.) are you going to ask people for advice or are you going to go on your gut instinct...It was quite interesting to see how ((pause)) lads of that age haven't got a clue on their own(.)”- <b>ARISTOTLE</b></p> <p>they're still just like primary school so ((pause)) for them to be given information how to make better decisions and things is absolutely invaluable for them (.) it's something we never had in school and I wish we did have that because I was very much just go off my instinct or (.) say nothing and it will go away(.)”- <b>ARISTOTLE</b></p> <p>“I know this generation is becoming a massive issue people don't like uncertainty((pause)) the term snowflake is used quite a lot(.) it's a perfect research project to do (.)...it's looked at how children can think about what's actually happening(.) calm down stay calm and actually make an ((pause)) you know (.) educated decision(.)”- <b>ARISTOTLE (staff)</b></p> <p>“The one with you finger one where you had to basically ((pause)) the choice to avoid it or actually confront someone and</p>

		<p>say ‘This I’m not happy with this’ (.) ‘This is an issue we need to speak about it’ all the time or ((pause)) basically what happens is you tend to end up with no one says anything to you...’- <b>ARISTOTLE discussing the benefits of the Chinese Finger Trap task</b></p> <p>“It (the programme) was really relevant to this day and age(.) It’s such a big issue at the moment(.) Kids just(.) it’s called the snowflake generation for a reason(.) They just do not deal with any kind of uncertainty or anxiety(.) they just really struggle and that (programme content) again was perfect(.)”- <b>ARISTOTLE (staff)</b></p>
	<b>Skilled up &amp; ready</b>	<p>“It helps me clear my mind when I was stressing.”</p> <p>“It taught us some useful methods to cope with stress or anxiety related to feeling uncertain.”</p> <p>“I learned about different ways to deal with stress and being unsure of things”</p> <p>“How to deal with uncertainty with methods that suit the situation.”</p> <p>“I gained confidence.”</p> <p>“How to control anger and uncertainty”</p> <p>“I learned what to do when I feel unsure”</p> <p>“Learning how to deal with things”</p> <p>“I know how to respond in certain problems”</p> <p>“I know what to do in difficult situations”</p> <p>“I learned what to do when I feel unsure”</p> <p>The breathing exercises... helped a lot to calm me down.”</p>

		<p>“we learned how to stay calm or like how to control our breathing and stuff and not like worry as much if we had exams and stuff like that”- <b>MAGGIE (YP)</b></p> <p>“It helped me relax and ((pause)) the ((pause)) meditation I used quite a bit at home(.)”- <b>JOHN (YP)</b></p> <p>“Yeah(.) Like stuff at home that happened (.) so you can like ((pause)) calm down quicker and talk it out”- <b>MAGGIE (YP)</b>  <b>when discussing the use of reflective skills gained during the programme</b></p> <p>“Like say you've got a problem then you can ((pause)) like say you're angry or something (.) and then you do some meditation and relax(.) – <b>JOHN (YP)</b></p> <p>“To stay calm in stressful situations”</p> <p>“...it (the programme) was very helpful and now I know what to do in the future if anything like that happens(.)”- <b>ROBINSON (YP)</b></p> <p>“...I can use it (the programme) later in life when I’ve got loads of dilemmas because I had a dilemma from this which could be resolved to that (.) and I could use the same outcome to fix it(.)- <b>JOHN (YP)</b></p>
	<b>Accept &amp; Tackle</b>	<p>“I had learned to accept that things that make you uncomfortable are just there.”</p> <p>“Relaxed me to not run away situations.”</p> <p>“I learned to just accept that things are just there.”</p> <p>“How to accept things are inevitable and coping with them”</p> <p>“I am ok with being unsure now unlike before.”</p>

		<p>“you can't just pull away from a situation ((long pause)) but if you just face it and say(.) ‘look my bad’(.) it’s a lot better(.) then you can just resolve things and there is no like tension ((pause))”- <b>NIGEL (YP) on what he learned from the programme</b></p> <p>“If you have a problem deal with it instead of avoiding it”</p> <p>“the lesson on the acceptance and avoidance also helped about like(.) how to accept problems no matter how bad it is and it can help get weight off your shoulders and like yeah(.)”- <b>ROBINSON (YP)</b></p> <p>“How to respect people and act assertive”</p> <p>“taught us how to calm down and sort situations”</p> <p>“To be assertive not aggressive or passive”</p> <p>“To stay focus and how to think assertively in various situations”</p> <p>“it also helped whenever I face a problem how(.) like emm (.) how to like resolve it and how to act upon it using like assertive actions and things like that(.)” – <b>ROBINSON (YP) on what he learned from the programme</b></p>
	<b>I’m normal</b>	<p>“I think it was really good because it sort of made you feel it was ok to be uncertain(.) like you can't always know what's going to happen all the time(.) I think it's sort of like you realise that other people were uncertain too(.)”- <b>NIGEL (YP)</b></p> <p>“That I am not the only person who feels like this sometimes”</p> <p>“That it’s okay to be uncertain”</p>

Theme	Illustrative quote(s)
New Perspectives	<p><i>“I learned a lot about CBT which I didn’t appreciate (.) I learned a lot about how kids think which I wasn’t aware of how kids think ((pause))”- <b>ETHEL (staff)</b></i></p> <p><i>“And when a kid reacts with anger as well (.) I now understand that process as well of how they got to(.) it was really helpful(.)”- <b>ETHEL (staff)</b></i></p> <p><i>“I learned a lot about how to deal with certain issues when they arise in terms of ((pause)) challenging it because it can be quite frustrating is blaming someone else that I now get why those kids do that and how they need help thinking it through(.)”- <b>ETHEL (staff)</b></i></p> <p><i>“For me being involved it was useful to see some of the students (.) that that do struggle with certain situations... and it was how they adapted and how they handled it and it was quite nice to see because initially ((pause)) we entered into it with them with a little trepidation because well how are they going to handle it are they going to sort of ((pause)) close up is it going to be detrimental to them? but actually they enjoyed it and they ((pause)) and particularly one student who we knew who does have problems and he did engage with it”- <b>SAPPHO (staff)</b></i></p> <p><i>“but to see his engagement I was surprised that his parents were hesitant about allowing him to try things ((pause)) sometimes you wonder if it is the parents stopping the children (.)... is it their sort of reluctance rather than the child?”- <b>SAPPHO (staff) re: boy with Asperger’s whose parents were worried about doing the programme (staff)</b></i></p> <p><i>“I learned how to handle new situations in different ways.”</i></p> <p><i>“to think differently and to prepare for different situations”</i></p> <p><i>“It helped us have a different view of life.”</i></p> <p><i>“Learned new ways to approach situations.”</i></p> <p><i>“It helps you...think of all different and best approaches to situations and ways of talking to people...”</i></p> <p><i>“It helps you learn different ways to think and approach situations”</i></p> <p><i>“I learned how some people may feel on the inside and how some situations may appear to people with different approaches.”</i></p> <p><i>“It was good to learn to consider different possibilities and outcomes so it was relatable and useful in life.”</i></p>

	<p><i>“Like even though we’d say problems with the finger trap and reflect on other things (.) like there’s always a way to solve it(.) If I’m ever in a bad situation I can remember that and then I’ll know there are always more way to solve it (.) if I just think about it(.)” - <b>TERRY (YP)</b></i></p> <p><i>“It just brought you to like ((pause)) a place that you'd never even been before” (re: mindfulness)- <b>NIGEL (YP)</b></i></p> <p><i>“Like we could learn how to look at situations in a different light(.) So like if we used to look at them and get quite angry(.) we could actually be calm and find a different way to approach situations and like look at how other people might approach it with different mindsets and stuff like that”- <b>MAGGIE (YP)</b></i></p> <p><i>“...because it does help and like it changed how I think about stuff(.)” – <b>MAGGIE (YP)</b></i></p> <p><i>“It was really good because like (.) it taught you like (.) how to look at stuff and it might like (.) change your views on when someone ((pause)) when you’re having an argument or something you might look at differently and probably sort it out quicker(.)” – <b>MAGGIE (YP)</b></i></p> <p><i>“(I learned to) assess things in life before taking action”</i></p> <p><i>Well before the programme ((pause)) if I'd probably be more passive-aggressive than assertive to be honest ((pause))...And so I think the programme has kind of like opened my eyes to what's better (.)...because it's kind of like not getting angry and you’re not like ((pause)) hmmm ((pause)) trying to take it out on them later(.) you're telling you’re telling them that you don't want to do it like straight away - <b>MILTON (YP)</b></i></p> <p><i>“Hmm ((pause)) in football(.) I was running through and I thought should I be greedy and shoot or should I pass ((pause)) and share the glory and then I passed”- <b>JOHN (YP)</b> reflecting on how the programme helped him with dilemmas</i></p>
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Theme	Sub-Theme	Illustrative quote(s)
<b>Relationships &amp; behaviour</b>	<b>N/A</b>	<p><i>“I think it’s helped them think about their actions and how they react to certain situations has really helped(.)”- <b>ETHEL (staff)</b></i></p> <p><i>“it was almost like he was a different person at points the way he responded to the programme(.) you know(.) you saw him in a totally different light(.)” – <b>ETHEL (staff) taking about the impact on a specific student with behavioural issues</b></i></p> <p><i>“...the teaching support assistant who works with him I sent them all the materials and all the stuff and she was going through with him and talking about it and she said that she noticed a marked difference in his attitude and in his behaviour over there(.) so(.) it wasn’t just a kind of one-off kind of thing ((pause))”- <b>ETHEL (staff) speaking about the specific student’s behaviour outside of the programme time</b></i></p> <p><i>“he spoke to me and said that basically he knows that he can be a bit of an idiot and stuff like that and he doesn’t mean to be an idiot(.)and he explained that he felt that it was different he felt ((pause)) that PD wasn’t judging him because PD doesn’t know him and that every teacher judges him when he walks into a classroom and he feels like he’s got ((pause)) no way out because no matter what he does (.) he’s always going to be picked on(.) but he didn’t feel that way with PD and he felt valued by him(.)”- <b>Ethel on how the researcher’s approach during the programme helped a student to feel valued</b></i></p>
	<b>Hands On</b>	<p><i>It's been really really hands-on(.) they've been doing loads of stuff(.). It's not been ((pause)) them sitting there looking at a board or being bored or stuff like that(.) so that's been really really beneficial the way that sessions have worked they've been great (.)- <b>ARISTOTLE (staff)</b></i></p> <p><i>I loved how hands-on it was(.) I think a lot of the times ((pause)) this idea of this ‘if you just speak to me(.) I won’t learn’ (.) whereas with this it was all about ((long pause)) being active really(.) they were always active; it was always them involved(.)- <b>ARISTOTLE (staff)</b></i></p>

		<p><i>“...it (the programme) was interactive which was nice so they weren't just sitting there (.) I think that was something else they were all expecting and that's what they're used to it's that you just sit but they didn't have to they could get up and they could walk around they swapped and what have you (.) so that was nice that was different for them and I think that they all enjoyed that and I think that helped them sort of that helped their confidence and also their belonging with the rest of the group” – SAPPHO (staff)</i></p> <p><i>“I liked the interaction with the boys when they weren't just sort of sitting down”- SAPPHO (staff)</i></p>
	<p><b>Treated like young adults</b></p>	<p><i>“but actually he had that trust(.) ...he just sort of trusted them to get on with it(.) a lot of teachers with chocolate or whatever it might be(.) they might not have that trust: ‘I couldn't possibly give them a Malteser because they'll just mess around and eat it!’ Whereas(.) he (researcher) was brave(.) he took risks and it worked really well(.)”- ARISTOTLE (staff)</i></p> <p><i>“... they were treated more as young adults rather than just children and their views and their opinions and being able to voice what they wanted to say mattered and they were listened to”- SAPPHO (staff)</i></p>

**RQ7 What do those involved with the programme perceive as the challenges associated with the programme?**

Theme	Sub-theme	Illustrative quote(s)
<b>Unappreciated Impact</b>		<p><i>“I think some of the tasks probably made them feel more anxious ((pause)) ...they benefitted more in the long run(.)”- <b>ETHEL (staff)</b></i></p> <p><i>“I think they struggled thinking about things they don’t want to think about(.) but(.) I think it helped in the end and the way it was managed was really really good(.)”- <b>ETHEL (staff)</b></i></p> <p><i>“I don’t think they do appreciate what the programme did for them because they can’t see those little changes...”- <b>ETHEL (staff)</b></i></p> <p>“In my complete honesty, I do still find it difficult to take assertive actions, and also, I still find it difficult not to resist temptation”</p> <p>“my least favourite activity was the mindfulness because it was useless”</p> <p>“I struggled to understand the reason for these exercises”</p> <p>“it (the programme) was a little bit confusing”</p> <p>“understanding things (was a challenge)”</p> <p>“Ok it's) really good(.) but you need to try to get as involved as you can in it or it won't really help you because if you just sit back and don't put your hand up for anything then it (.) sort of won't really help and then what's the point of it?”- <b>NIGEL (YP) describing the programme and importance of engagement to optimise impact</b></p>
	<b><i>“Boring hippie nonsense”</i></b>	<p>“we would not have time to label our thoughts as we during the activity, in a school environment”</p> <p>“I liked the mindfulness thing because its good but if you were really stressed out in school or something you don’t have time to sit and you cant close your eyes but I still liked it (sic)”</p> <p>“being bored”</p> <p>“I felt that the whole SPOTLIGHT OF ATTENTION thing was a bit stupid”</p>

		<p>“a waste of time”</p> <p>“boring hippie nonsense ect”</p> <p>“it was sometimes boring”</p> <p>“you just had to sit through it really”</p> <p>“I think some of the tasks were a bit like ((pause)) boring to be honest((pause)) ...like some like some of the tasks seemed to drag on a bit you know what I mean? – <b>MILTON (YP)</b></p>
	<b><i>Unrealistic expectations</i></b>	<p>“I think also that they had hmmm ((pause)) an unrealistic expectation of what it was going to do((pause)) I think they all felt that by the end of it (.) they would feel (.) better or different or whatever else and I think that they thought there would be a marked difference in how they thought or felt(.) because one of the kids yesterday said to me(.) ‘it was really good but it hasn’t really done anything!’ but I do think that was because their expectations of what the programme was going to do was totally different(.) I think they’re kids(.) you know?”- <b>ETHEL (staff)</b></p> <p>“And especially(.) this came from two of the girls who are ((pause)) being mentored at the moment because they have self-esteem issues and anxiety and ((pause)) real issues with self-harm with one of them(.) I think I thought they thought this was going to provide them with the answer(.)”- <b>ETHEL (staff)</b></p>
	<b><i>Ignorance is bliss</i></b>	<p>“I feel I only worry to a minimal extent compared to others so I felt as though it opened ideas that I hadn’t considered making me worried”</p> <p>“I had to think about things I had never thought about” (<b>reported as a challenge</b>)</p> <p>“I think they struggled thinking about things they don’t want to think about(.) -<b>ETHEL (staff)</b></p>

Theme	Illustrative Quote
<p><b>Real-life Connections</b></p>	<p><i>“...again maybe if there was a little bit more of ((pause)) ok(.) so you’ve just done that ((pause)) can you then go away and give examples to me of everyday school life? For example the finger trap- write down examples(.) so you know something written down and they discuss that maybe(.) so then they can say that's for that that's for that that's for that(.) they have a bank of work then to go from(.) so where they go- why did we do that? That was all about understanding our emotions and feelings(.) ok(.) Where would I use that? actually(.) maybe writing something down ((pause)) recording something down in the booklets(.) Maybe something like that(.)” - <b>ARISTOTLE</b></i></p> <p><i>I’ve said maybe about putting it into sort of everyday school life(.) once you’ve done the friend task or the finger trap or Malteser task or whatever it is(.) get them to write down like(.) right(.) you've got 5 or 10 minutes now give me an example of how this affects your every single day life in school(.)- <b>ARISTOTLE</b></i></p> <p><i>“it's getting them to think about everyday life like I’ve said before (.) In everyday life how are you going to apply this?”- <b>ARISTOTLE</b></i></p> <p><i>“i think it could’ve covered topics like depression and how to deal with that”</i></p>

Theme	Sub-theme	Illustrative quote(s)
Mindful environment	N/A	<p><i>“I think you need a quiet space away from everybody hmmm ((pause)) you haven't got sort of people interrupting I think that's important if the programme was to be rolled out”- SAPPHO (staff)</i></p> <p><i>“for instance the business teacher and students would just come in to collect their books during the session ((pause)) which (.) probably in hindsight ((pause)) wasn't appropriate really (.) you know it should have just been a closed session really if you want your books get your books (.) even for the teachers seeing a session going on he shouldn't have come in because again that sort of ((pause)) broke the thought process and everything”- SAPPHO (staff)</i></p> <p><i>“I think it's sort of that's more of a tailored programme for some students rather than ((pause)) them all... maybe it's a tailored programme for just a few of them so smaller groups rather than a group of 30 or something like that because obviously that was quite a big group and it's quite a big group when you're trying to ((pause)) obviously keep them all quiet to sort of conduct for mindfulness you know”- SAPPHO (staff)</i></p> <p><i>“it was stressful when the others in class were being loud and annoying because it put me off and I didn't enjoy it as much as I could've when they were getting told off”</i></p> <p><i>“trying not to laugh at other people and stay focused”</i></p> <p><i>“Mmmm ((pause)) like make sure that everyone is doing the stuff(.) like it was a bit awkward when someone else wasn't taking part and half of the class were(.) It just made it a bit uncomfortable some of the time(.)”- MAGGIE (YP)</i></p> <p><i>“it was also stressful because in lesson we would do more than one thing but not have enough time”</i></p> <p><i>“sometimes I got distracted (sic)”</i></p>

		<p><i>“One found people messing about annoying for people such as myself”</i></p> <p><i>“it made me nervous because I didn’t want to get hit by the brain when I answered questions”</i></p> <p><i>“not getting along with certain people in my group”</i></p> <p><i>“when we did group activity because it was too stressful working with people i didn’t know (sic)”</i></p>
	<b>Self-consciousness</b>	<p>“Can also make you feel a bit insecure as you have to share your opinions with the class.”</p> <p>“sharing personal things with other people”</p> <p>“when we had to be honest. so when we did something some bits were personal and we would like to share it but I did t because I knew the class would judge me (sic)””</p> <p>“(the programme) can also make you feel a bit insecure as you have to share your opinions with the class”</p> <p>“maybe if he made some subjects a bit less personal (.) people might have wanted to participate more...they didn’t really want to say so not many people put up their hands up (.)”- <b>TERRY (YP)</b></p> <p>“not confident in talking in case some thing I said was wrong but was good towards the end (sic)”</p> <p>“having to answer questions im not sure of or answering questions where I don’t know the answers (sic)”</p> <p>“Well (.) I thought it (Malteaser mindfulness task) was a bit awkward and ((pause)) just a bit unusual because I’ve never done that before(.) it felt a bit weird.”- <b>ROBINSON (YP)</b></p> <p>“I think one of the challenges would probably have been being honest about everything you're saying(.)... Well you want a kind of like appear good but ((pause)) you don’t if you don't think that</p>

		then you kind of just lie about what you would do(.)”- <b>MILTON (YP)</b>
Theme		Illustrative quote(s)
“I don’t want this programme to just stop...”		<p>“...in a way that to me was quite difficult because the children know that were coming to the end of the session ((pause)) we have one bell to signify pack up (.) and then the next bell is you should be in your lesson ((pause)) so that was quite challenging because at that first bell some people need to continue practicing it to hmmm (.) make sure it works(.”- <b>ETHEL</b></p> <p>“...at the end(.” there is a follow-up(.” so it’s not just left(.” and they can start walking around outside (.) so I think that sort of ((pause)) broke there sort of (.) calmness in a way...and maybe increased the sort of stress you know is anybody gonna see me? or how long is this going to go on because I’m going to be late and that was something I felt was a bit difficult for them”- <b>ARISTOTLE</b></p> <p>“if you were going to improve it at all it would be that over lasting impact is (.) Are they going to record what they’ve done differently in the next 6 months? so from now till summer(.” how has this project changed their life? Is there something in place that could measure that or that can judge that?”- <b>SAPPHO (staff)</b> on when mindfulness was sometimes conducted near the end of session</p>
		<p>“When people come in (.) it’s that sort of ((pause)) the child then thinks what you know ‘they’re going to think we’re stupid’ and then they’re sitting here with a Malteser on their hand with their eyes closed ((pause)) you know it’s that kind of thing?”- <b>SAPPHO (staff)</b></p>



### **Appendix CCC: PDF Appendices**

The following appendices have been printed separately from the main thesis as they are in PDF form. They are placed in the following order:

- 1. Presentation used during EP Working Group (Study 1)**
- 2. Presentation used to present the *Embrace Life* Programme to Parents and Carers Parent (Study 2; Pilot 1)**
- 3. *Embrace Life* Booklet & PowerPoint (Pilot 1)**

*Appendix CCC is available on request from the researcher to protect the copyright of the *Embrace Life* programme.*